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111TH CONGRESS, 1st Session } HOUSE OF REPRESENTATIVES { REPT. 111–137, Part 1

AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009

JUNE 5, 2009.—Ordered to be printed

Mr. WAXMAN, from the Committee on Energy and Commerce, submitted the following

R E P O R T

together with

MINORITY AND ADDITIONAL VIEWS

[To accompany H.R. 2454]

[Including cost estimate of the Congressional Budget Office]

The Committee on Energy and Commerce, to whom was referred the bill (H.R. 2454) to create clean energy jobs, achieve energy independence, reduce global warming pollution and transition to a clean energy economy, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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The amendment is as follows:
Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "American Clean Energy and Security Act of 2009".

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Definitions.
Sec. 3. International participation.

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Subtitle A—Combined Efficiency and Renewable Electricity Standard

Sec. 101. Combined efficiency and renewable electricity standard.
Sec. 102. Clarifying State authority to adopt renewable energy incentives.

Subtitle B—Carbon Capture and Sequestration

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Sec. 116. Performance standards for coal-fueled power plants.
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Sec. 125. Advanced technology vehicle manufacturing incentive loans.
Sec. 126. Amendment to renewable fuels standard.
Sec. 127. Open fuel standard.
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Sec. 129. Diesel emissions reduction.
Sec. 130. Loan guarantees for projects to construct renewable fuel pipelines.

Subtitle D—State Energy and Environment Development Accounts

Sec. 131. Establishment of SEED Accounts.
Sec. 132. Support of State renewable energy and energy efficiency programs.

Subtitle E—Smart Grid Advancement

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Sec. 142. Assessment of Smart Grid cost effectiveness in products.
Sec. 143. Inclusions of Smart Grid capability on appliance ENERGY GUIDE labels.
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Sec. 145. Reauthorization of energy efficiency public information program to include Smart Grid information.
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Subtitle F—Transmission Planning

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Subtitle G—Technical Corrections to Energy Laws

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Sec. 186. Clean Energy Deployment Administration.
Sec. 187. Direct support.
Sec. 188. Federal credit authority.
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Sec. 194. Office of Consumer Advocacy.

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SEC. 2. DEFINITIONS.

For purposes of this Act:

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) STATE.—The term "State" has the meaning given that term in section 302 of the Clean Air Act.

SEC. 3. INTERNATIONAL PARTICIPATION.

The Administrator, in consultation with the Department of State and the United States Trade Representative, shall annually prepare and certify a report to the Congress regarding whether China and India have adopted greenhouse gas emissions standards at least as strict as those standards required under this Act. If the Administrator determines that China and India have not adopted greenhouse gas emissions standards at least as stringent as those set forth in this Act, the Administrator shall notify each Member of Congress of his determination, and shall release his determination to the media.

TITLE I—CLEAN ENERGY

Subtitle A—Combined Efficiency and Renewable Electricity Standard

SEC. 101. COMBINED EFFICIENCY AND RENEWABLE ELECTRICITY STANDARD.

(a) IN GENERAL.—Title VI of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 and following) is amended by adding at the end the following:

"SEC. 610. COMBINED EFFICIENCY AND RENEWABLE ELECTRICITY STANDARD.

"(a) DEFINITIONS.—For purposes of this section:

"(1) CHP SAVINGS.—The term 'CHP savings' means—

"(A) CHP system savings from a combined heat and power system that commences operation after the date of enactment of this section; and

"(B) the increase in CHP system savings from, at any time after the date of the enactment of this section, upgrading, replacing, expanding, or increasing the utilization of a combined heat and power system that commenced operation on or before the date of enactment of this section.

"(2) CHP SYSTEM SAVINGS.—The term 'CHP system savings' means the electric output, and the electricity saved due to the mechanical output, of a combined heat and power system, adjusted to reflect any increase in fuel consumption by that system as compared to the fuel that would have been required to produce an equivalent useful thermal energy output in a separate thermal-only system.

"(3) COMBINED HEAT AND POWER SYSTEM.—The term 'combined heat and power system' means a system that uses the same energy source both for the generation of electrical or mechanical power and the production of steam or another form of useful thermal energy, provided that—

"(A) the system meets such requirements relating to efficiency and other operating characteristics as the Commission may promulgate by regulation; and

"(B) the net sales of electricity by the facility to customers not consuming the thermal output from that facility will not exceed 50 percent of total annual electric generation by the facility.

"(4) CUSTOMER FACILITY SAVINGS.—The term 'customer facility savings' means a reduction in end-use electricity consumption (including recycled energy savings) at a facility of an end-use consumer of electricity served by a retail electric supplier, as compared to—

"(A) in the case of a new facility, consumption at a reference facility of average efficiency;

"(B) in the case of an existing facility, consumption at such facility during a base period, except as provided in subparagraphs (C) and (D);

"(C) in the case of new equipment that replaces existing equipment with remaining useful life, the projected consumption of the existing equipment for the remaining useful life of such equipment, and thereafter, consump-

tion of new equipment of average efficiency of the same equipment type; and

"(D) in the case of new equipment that replaces existing equipment at the end of the useful life of the existing equipment, consumption by new equipment of average efficiency of the same equipment type.

"(5) DISTRIBUTED RENEWABLE GENERATION FACILITY.—The term 'distributed renewable generation facility' means a facility that—

"(A) generates renewable electricity;

"(B) primarily serves 1 or more electricity consumers at or near the facility site; and

"(C) is no greater than—

"(i) 2 megawatts in capacity; or

"(ii) 4 megawatts in capacity, in the case of a facility that is placed in service after the date of enactment of this section and generates electricity from a renewable energy resource other than by means of combustion.

"(6) ELECTRICITY SAVINGS.—The term 'electricity savings' means reductions in electricity consumption, relative to business-as-usual projections, achieved through measures implemented after the date of enactment of this section, limited to—

"(A) customer facility savings of electricity, adjusted to reflect any associated increase in fuel consumption at the facility;

"(B) reductions in distribution system losses of electricity achieved by a retail electricity distributor, as compared to losses attributable to new or replacement distribution system equipment of average efficiency;

"(C) CHP savings; and

"(D) fuel cell savings.

"(7) FEDERAL LAND.—The term 'Federal land' means land owned by the United States, other than land held in trust for an Indian or Indian tribe.

"(8) FEDERAL RENEWABLE ELECTRICITY CREDIT.—The term 'Federal renewable electricity credit' means a credit, representing one megawatt hour of renewable electricity, issued pursuant to subsection (e).

"(9) FUEL CELL.—The term 'fuel cell' means a device that directly converts the chemical energy of a fuel and an oxidant into electricity by electrochemical processes occurring at separate electrodes in the device.

"(10) FUEL CELL SAVINGS.—The term 'fuel cell savings' means the electricity saved by a fuel cell that is installed after the date of enactment of this section, or by upgrading a fuel cell that commenced operation on or before the date of enactment of this section, as a result of the greater efficiency with which the fuel cell transforms fuel into electricity as compared with sources of electricity delivered through the grid, provided that—

"(A) the fuel cell meets such requirements relating to efficiency and other operating characteristics as the Commission may promulgate by regulation; and

"(B) the net sales of electricity from the fuel cell to customers not consuming the thermal output from the fuel cell, if any, do not exceed 50 percent of the total annual electricity generation by the fuel cell.

"(11) HIGH CONSERVATION PRIORITY LAND.—The term 'high conservation priority land' means land that is not Federal land and is—

"(A) globally or State ranked as critically imperiled or imperiled under a State Natural Heritage Program; or

"(B) old-growth or late-successional forest, as identified by the office of the relevant State Forester or relevant State agency with regulatory jurisdiction over forestry activities.

"(12) OTHER QUALIFYING ENERGY RESOURCE.—The term 'other qualifying energy resource' means any of the following:

"(A) Landfill gas.

"(B) Wastewater treatment gas.

"(C) Coal mine methane used to generate electricity at or near the mine mouth.

"(D) Qualified waste-to-energy.

"(13) QUALIFIED HYDROPOWER.—The term 'qualified hydropower' means—

"(A) energy produced from increased efficiency achieved, or additions of capacity made, on or after January 1, 1992, at a hydroelectric facility that was placed in service before that date and does not include additional energy generated as a result of operational changes not directly associated with efficiency improvements or capacity additions; or

"(B) energy produced from generating capacity added to a dam on or after January 1, 1992, provided that the Commission certifies that—

"(i) the dam was placed in service before the date of the enactment of this section and was operated for flood control, navigation, or water supply purposes and was not producing hydroelectric power prior to the addition of such capacity;

"(ii) the hydroelectric project installed on the dam is licensed (or is exempt from licensing) by the Commission and is in compliance with the terms and conditions of the license or exemption, and with other applicable legal requirements for the protection of environmental quality, including applicable fish passage requirements; and

"(iii) the hydroelectric project installed on the dam is operated so that the water surface elevation at any given location and time that would have occurred in the absence of the hydroelectric project is maintained, subject to any license or exemption requirements that require changes in water surface elevation for the purpose of improving the environmental quality of the affected waterway.

"(14) QUALIFIED WASTE-TO-ENERGY.—The term 'qualified waste-to-energy' means energy from the combustion of municipal solid waste or construction, demolition, or disaster debris, or from the gasification or pyrolization of such waste or debris and the combustion of the resulting gas at the same facility, provided that—

"(A) such term shall include only the energy derived from the non-fossil biogenic portion of such waste or debris;

"(B) the Commission determines, with the concurrence of the Administrator of the Environmental Protection Agency, that the total lifecycle greenhouse gas emissions attributable to the generation of electricity from such waste or debris are lower than those attributable to the likely alternative method of disposing of such waste or debris; and

"(C) the owner or operator of the facility generating electricity from such energy provides to the Commission, on an annual basis—

"(i) a certification that the facility is in compliance with all applicable State and Federal environmental permits;

"(ii) in the case of a facility that commenced operation before the date of enactment of this section, a certification that the facility meets emissions standards promulgated under sections 112 or 129 of the Clean Air Act (42 U.S.C. 7412 or 7429) that apply as of the date of enactment of this section to new facilities within the relevant source category; and

"(iii) in the case of the combustion, pyrolization, or gasification of municipal solid waste, a certification that each local government unit from which such waste originates operates, participates in the operation of, contracts for, or otherwise provides for, recycling services for its residents.

"(15) RECYCLED ENERGY SAVINGS.—The term 'recycled energy savings' means a reduction in electricity consumption that results from a modification of an industrial or commercial system that commenced operation before the date of enactment of this section, in order to recapture electrical, mechanical, or thermal energy that would otherwise be wasted.

"(16) RENEWABLE BIOMASS.—The term 'renewable biomass' means any of the following:

"(A) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 1, 2009.

"(B) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.

"(C) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not municipal solid waste, recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).

"(D) Animal waste or animal byproducts, including products of animal waste digesters.

"(E) Algae.

"(F) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road, electric transmission line, utility tower, or water supply line.

"(G) Residues from or byproducts of milled logs.

"(H) Any of the following removed from forested land that is not Federal and is not high conservation priority land:

"(i) Trees, brush, slash, residues, interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established—

"(I) prior to January 1, 2009; or

"(II) on land that, as of January 1, 2009, was cultivated or fallow and non-forested.

"(ii) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation.

"(iii) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types.

"(iv) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees.

"(I) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are—

"(i) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or mature forest stands, components of the National Landscape Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas, or Wild and Scenic Rivers corridors;

"(ii) harvested in environmentally sustainable quantities, as determined by the appropriate Federal land manager; and

"(iii) harvested in accordance with Federal and State law and applicable land management plans.

"(17) RENEWABLE ELECTRICITY.—The term 'renewable electricity' means electricity generated (including by means of a fuel cell) from a renewable energy resource or other qualifying energy resources.

"(18) RENEWABLE ENERGY RESOURCE.—The term 'renewable energy resource' means each of the following:

"(A) Wind energy.

"(B) Solar energy.

"(C) Geothermal energy.

"(D) Renewable biomass.

"(E) Biogas derived exclusively from renewable biomass.

"(F) Biofuels derived exclusively from renewable biomass.

"(G) Qualified hydropower.

"(H) Marine and hydrokinetic renewable energy, as that term is defined in section 632 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17211).

"(19) RETAIL ELECTRIC SUPPLIER.—

"(A) IN GENERAL.—The term 'retail electric supplier' means, for any given year, an electric utility that sold not less than 4,000,000 megawatt hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year.

"(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether an electric utility qualifies as a retail electric supplier under subparagraph (A)—

"(i) the sales of any affiliate of an electric utility to electric consumers, other than sales to the affiliate's lessees or tenants, for purposes other than resale shall be considered to be sales of such electric utility; and

"(ii) sales by any electric utility to an affiliate, lessee, or tenant of such electric utility shall not be treated as sales to electric consumers.

"(C) AFFILIATE.—For purposes of this paragraph, the term 'affiliate' when used in relation to a person, means another person that directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, such person, as determined under regulations promulgated by the Commission.

"(20) RETAIL ELECTRIC SUPPLIER'S BASE AMOUNT.—The term 'retail electric supplier's base amount' means the total amount of electric energy sold by the

retail electric supplier, expressed in megawatt hours, to electric customers for purposes other than resale during the relevant calendar year, excluding—

"(A) electricity generated by a hydroelectric facility that is not qualified hydropower;

"(B) electricity generated by a nuclear generating unit placed in service after the date of enactment of this section; and

"(C) the proportion of electricity generated by a fossil-fueled generating unit that is equal to the proportion of greenhouse gases produced by such unit that are captured and geologically sequestered.

"(21) RETIRE AND RETIREMENT.—The terms 'retire' and 'retirement' with respect to a Federal renewable electricity credit, means to disqualify such credit for any subsequent use under this section, regardless of whether the use is a sale, transfer, exchange, or submission in satisfaction of a compliance obligation.

"(22) THIRD-PARTY EFFICIENCY PROVIDER.—The term 'third-party efficiency provider' means any retailer, building owner, energy service company, financial institution or other commercial, industrial or nonprofit entity that is capable of providing electricity savings in accordance with the requirements of this section.

"(23) TOTAL ANNUAL ELECTRICITY SAVINGS.—The term 'total annual electricity savings' means electricity savings during a specified calendar year from measures that were placed into service since the date of the enactment of this section, taking into account verified measure lifetimes or verified annual savings attrition rates, as determined in accordance with such regulations as the Commission may promulgate and measured in megawatt hours.

"(b) ANNUAL COMPLIANCE OBLIGATION.—

"(1) IN GENERAL.—For each of calendar years 2012 through 2039, not later than March 31 of the following calendar year, each retail electric supplier shall submit to the Commission an amount of Federal renewable electricity credits and demonstrated total annual electricity savings that, in the aggregate, is equal to such retail electric supplier's annual combined target as set forth in subsection (d), except as otherwise provided in subsection (g).

"(2) DEMONSTRATION OF SAVINGS.—For purposes of this subsection, submission of demonstrated total annual electricity savings means submission of a report that demonstrates, in accordance with the requirements of subsection (f), the total annual electricity savings achieved by the retail electric supplier within the relevant compliance year.

"(3) RENEWABLE ELECTRICITY CREDITS PORTION.—Except as provided in paragraph (4), each retail electric supplier must submit Federal renewable electricity credits equal to at least three quarters of the retail electric supplier's annual combined target.

"(4) STATE PETITION.—

"(A) IN GENERAL.—Upon written request from the Governor of any State (including, for purposes of this paragraph, the Mayor of the District of Columbia), the Commission shall increase, to not more than two fifths, the proportion of the annual combined targets of retail electric suppliers located within such State that may be met through submission of demonstrated total annual electricity savings, provided that such increase shall be effective only with regard to the portion of a retail electric supplier's annual combined target that is attributable to electricity sales within such State.

"(B) CONTENTS.—A Governor's request under this paragraph shall include an explanation of the Governor's rationale for determining, after consultation with the relevant State regulatory authority and other retail electricity ratemaking authorities within the State, to make such request. The request shall specify the maximum proportion of annual combined targets (not more than two fifths) that can be met through demonstrated total annual electricity savings, and the period for which such proportion shall be effective.

"(C) REVISION.—The Governor of any State may, after consultation with the relevant State regulatory authority and other retail electricity ratemaking authorities within the State, submit a written request for revocation or revision of a previous request submitted under this paragraph. The Commission shall grant such request, provided that—

"(i) any revocation or revision shall not apply to the combined annual target for any year that is any earlier than 2 calendar years after the calendar year in which such request is submitted, so as to provide retail electric suppliers with adequate notice of such change; and

"(ii) any revision shall meet the requirements of subparagraph (A).

"(c) ESTABLISHMENT OF PROGRAM.—Not later than 1 year after the date of enactment of this section, the Commission shall promulgate regulations to implement and

enforce the requirements of this section. In promulgating such regulations, the Commission shall, to the extent practicable—

"(1) preserve the integrity, and incorporate best practices, of existing State renewable electricity and energy efficiency programs;

"(2) rely upon existing and emerging State or regional tracking systems that issue and track non-Federal renewable electricity credits; and

"(3) cooperate with the States to facilitate coordination between State and Federal renewable electricity and energy efficiency programs and to minimize administrative burdens and costs to retail electric suppliers.

"(d) ANNUAL COMPLIANCE REQUIREMENT.—

"(1) ANNUAL COMBINED TARGETS.—For each of calendar years 2012 through 2039, a retail electric supplier's annual combined target shall be the product of—

"(A) the required annual percentage for such year, as set forth in paragraph (2); and

"(B) the retail electric supplier's base amount for such year.

"(2) REQUIRED ANNUAL PERCENTAGE.—For each of calendar years 2012 through 2039, the required annual percentage shall be as follows:

"Calendar year	Required annual percentage
2012	6.0
2013	6.0
2014	9.5
2015	9.5
2016	13.0
2017	13.0
2018	16.5
2019	16.5
2020	20.0
2021 through 2039	20.0

"(e) FEDERAL RENEWABLE ELECTRICITY CREDITS.—

"(1) IN GENERAL.—The regulations promulgated under this section shall include provisions governing the issuance, tracking, and verification of Federal renewable electricity credits. Except as provided in paragraphs (2), (3), and (4) of this subsection, the Commission shall issue to each generator of renewable electricity, 1 Federal renewable electricity credit for each megawatt hour of renewable electricity generated by such generator after December 31, 2011. The Commission shall assign a unique serial number to each Federal renewable electricity credit.

"(2) GENERATION FROM CERTAIN STATE RENEWABLE ELECTRICITY PROGRAMS.—Where renewable electricity is generated with the support of payments from a retail electric supplier pursuant to a State renewable electricity program (whether through State alternative compliance payments or through payments to a State renewable electricity procurement fund or entity), the Commission shall issue Federal renewable electricity credits to such retail electric supplier for the proportion of the relevant renewable electricity generation that is attributable to the retail electric supplier's payments, as determined pursuant to regulations issued by the Commission. For any remaining portion of the relevant renewable electricity generation, the Commission shall issue Federal renewable electricity credits to the generator, as provided in paragraph (1), except that in no event shall more than 1 Federal renewable electricity credit be issued for the same megawatt hour of electricity. In determining how Federal renewable electricity credits will be apportioned among retail electric suppliers and generators in such circumstances, the Commission shall consider information and guidance furnished by the relevant State or States.

"(3) CERTAIN POWER SALES CONTRACTS.—When a generator has sold renewable electricity to a retail electric supplier under a contract for power from a facility placed in service before the date of enactment of this section, and the contract does not provide for the determination of ownership of the Federal renewable electricity credits associated with such generation, the Commission shall issue such Federal renewable electricity credits to the retail electric supplier for the duration of the contract.

"(4) CREDIT MULTIPLIER FOR DISTRIBUTED RENEWABLE GENERATION.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the Commission shall issue 3 Federal renewable electricity credits for each megawatt hour of renewable electricity generated by a distributed renewable generation facility.

"(B) ADJUSTMENT.—Except as provided in subparagraph (C), not later than January 1, 2014, and not less frequently than every 4 years thereafter, the Commission shall review the effect of this paragraph and shall, as necessary, reduce the number of Federal renewable electricity credits per megawatt hour issued under this paragraph for any given energy source or technology, but not below 1, to ensure that such number is no higher than the Commission determines is necessary to make distributed renewable generation facilities using such source or technology cost competitive with other sources of renewable electricity generation.

"(C) FACILITIES PLACED IN SERVICE AFTER ENACTMENT.—For any distributed renewable generation facility placed in service after the date of enactment of this section, subparagraph (B) shall not apply for the first 10 years after the date on which the facility is placed in service. For each year during such 10-year period, the Commission shall issue to the facility the same number of Federal renewable electricity credits per megawatt hour as are issued to that facility in the year in which such facility is placed in service. After such 10-year period, the Commission shall issue Federal renewable electricity credits to the facility in accordance with the current multiplier as determined pursuant to subparagraph (B).

"(5) CREDITS BASED ON QUALIFIED HYDROPOWER.—For purposes of this subsection, the number of Federal renewable electricity credits issued for qualified hydropower shall be calculated—

"(A) based solely on the increase in average annual generation directly resulting from the efficiency improvements or capacity additions described in subsection (a)(13)(A); and

"(B) using the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility, as certified by the Commission.

"(6) GENERATION FROM MIXED RENEWABLE AND NONRENEWABLE RESOURCES.—If electricity is generated using both a renewable energy resource or other qualifying energy resource and an energy source that is not a renewable energy resource or other qualifying energy resource (as, for example, in the case of cofiring of renewable biomass and fossil fuel), the Commission shall issue Federal renewable electricity credits based on the proportion of the electricity that is attributable to the renewable energy resource or other qualifying energy resource.

"(7) PROHIBITION AGAINST DOUBLE-COUNTING.—Except as provided in paragraph (4) of this subsection, the Commission shall ensure that no more than 1 Federal renewable electricity credit will be issued for any megawatt hour of renewable electricity and that no Federal renewable electricity credit will be used more than once for compliance with this section.

"(8) TRADING.—The lawful holder of a Federal renewable electricity credit may sell, exchange, transfer, submit for compliance in accordance with subsection (b), or submit such credit for retirement by the Commission.

"(9) BANKING.—A Federal renewable electricity credit may be submitted in satisfaction of the compliance obligation set forth in subsection (b) for the compliance year in which the credit was issued or for any of the 3 immediately subsequent compliance years. The Commission shall retire any Federal renewable electricity credit that has not been retired by April 2 of the calendar year that is 3 years after the calendar year in which the credit was issued.

"(10) RETIREMENT.—The Commission shall retire a Federal renewable electricity credit immediately upon submission by the lawful holder of such credit, whether in satisfaction of a compliance obligation under subsection (b) or on some other basis.

"(f) ELECTRICITY SAVINGS.—

"(1) STANDARDS FOR MEASUREMENT OF SAVINGS.—As part of the regulations promulgated under this section, the Commission shall prescribe standards and protocols for defining and measuring electricity savings and total annual electricity savings that can be counted towards the compliance obligation set forth in subsection (b). Such protocols and standards shall, at minimum—

"(A) specify the types of energy efficiency and energy conservation measures that can be counted;

"(B) require that energy consumption estimates for customer facilities or portions of facilities in the applicable base and current years be adjusted, as appropriate, to account for changes in weather, level of production, and building area;

"(C) account for the useful life of measures;

"(D) include deemed savings values for specific, commonly used measures;

"(E) allow for savings from a program to be estimated based on extrapolation from a representative sample of participating customers;

"(F) include procedures for counting CHP savings, recycled energy savings, and fuel cell savings;

"(G) include procedures for counting electricity savings achieved by solar water heating and solar light pipe technology that has the capability to provide measureable data on the amount of megawatt-hours displaced;

"(H) avoid double-counting of savings used for compliance with this section, including savings that are transferred pursuant to paragraph (3);

"(I) ensure that, except as provided in subparagraph (K), the retail electric supplier claiming the savings played a significant role in achieving the savings (including through the activities of a designated agent of the supplier or through the purchase of transferred savings);

"(J) include savings from programs administered by a retail electric supplier (or a retail electricity distributor that is not a retail electric supplier) that are funded by State, Federal, or other sources;

"(K) in any State in which the State regulatory authority has designated 1 or more entities to administer electric ratepayer-funded efficiency programs approved by such State regulatory authority, provide that electricity savings achieved through such programs shall be distributed equitably among retail electric suppliers in accordance with the direction of the relevant State regulatory authority; and

"(L) exclude savings achieved as a result of compliance with mandatory appliance and equipment efficiency standards or building codes.

"(2) STANDARDS FOR THIRD-PARTY VERIFICATION OF SAVINGS.—The regulations promulgated under this section shall establish procedures and standards requiring third-party verification of all reported electricity savings, including requirements for accreditation of third-party verifiers to ensure that such verifiers are professionally qualified and have no conflicts of interest.

"(3) TRANSFERS OF SAVINGS.—

"(A) BILATERAL CONTRACTS FOR SAVINGS TRANSFERS.—Subject to the limitations of this paragraph, a retail electric supplier may use electricity savings transferred, pursuant to a bilateral contract, from another retail electric supplier, an owner of an electric distribution facility that is not a retail electric supplier, a State, or a third-party efficiency provider to meet the applicable compliance obligation under subsection (b).

"(B) REQUIREMENTS.—Electricity savings transferred and used for compliance pursuant to this paragraph shall be—

"(i) measured and verified in accordance with the procedures specified under this subsection;

"(ii) reported in accordance with paragraph (4) of this subsection; and

"(iii) achieved within the same State as is served by the retail electric supplier.

"(C) REGULATORY APPROVAL.—Nothing in this paragraph shall limit or affect the authority of a State regulatory authority to require a retail electric supplier that is regulated by such authority to obtain such authority's authorization or approval of a contract for transfer of savings under this paragraph.

"(4) REPORTING SAVINGS.—

"(A) REQUIREMENTS.—The regulations promulgated under this section shall establish requirements governing the submission of reports to demonstrate, in accordance with the protocols and standards for measurement and third-party verification established under this subsection, the total annual electricity savings achieved by a retail electric supplier within the relevant year.

"(B) REVIEW AND APPROVAL.—The Commission shall review each report submitted to the Commission by a retail electric supplier and shall exclude any electricity savings that have not been adequately demonstrated in accordance with the requirements of this subsection.

"(5) STATE ADMINISTRATION.—

"(A) DELEGATION OF AUTHORITY.—Upon receipt of an application from the Governor of a State (including, for purposes of this subsection, the Mayor of the District of Columbia), the Commission may delegate to the State the authority to review and verify reported electricity savings for purposes of determining demonstrated total annual electricity savings that may be counted towards a retail electric supplier's compliance obligation under subsection (b). The Commission shall make a substantive determination approving or disapproving a State application under this subparagraph, after notice and comment, within 180 days of receipt of a complete application.

"(B) ALTERNATIVE MEASUREMENT AND VERIFICATION PROCEDURES AND STANDARDS.—As part of an application submitted under subparagraph (A),

a State may request to use alternative measurement and verification procedures and standards to those specified in paragraphs (1) and (2), provided the State demonstrates that such alternative procedures and standards provide a level of accuracy of measurement and verification at least equivalent to the Federal procedures and standards promulgated under paragraphs (1) and (2).

"(C) REVIEW OF STATE IMPLEMENTATION.—The Commission shall, not less frequently than once every 4 years, review each State's implementation of delegated authority under this paragraph to ensure conformance with the requirements of this section. The Commission may, at any time, revoke the delegation of authority under this section upon a finding that the State is not implementing its delegated responsibilities in conformity with this paragraph. As a condition of maintaining its delegated authority under this paragraph, the Commission may require a State to submit a revised application under subparagraph (A) if the Commission has—

"(i) promulgated new or substantially revised measurement and verification procedures and standards under this subsection; or

"(ii) otherwise substantially revised the program established under this section.

"(g) ALTERNATIVE COMPLIANCE PAYMENTS.—

"(1) IN GENERAL.—A retail electric supplier may satisfy the requirements of subsection (b) in whole or in part by submitting in accordance with this subsection, in lieu of each Federal renewable electricity credit or megawatt hour of demonstrated total annual electricity savings that would otherwise be due, a payment equal to $25, adjusted for inflation on January 1 of each year following calendar year 2009, in accordance with such regulations as the Commission may promulgate.

"(2) PAYMENT TO STATE FUNDS.—Except as otherwise provided in this paragraph, payments made under this subsection shall be made directly to the State or States in which the retail electric supplier is located, in proportion to the portion of the retail electric supplier's base amount that is sold within each relevant State, provided that such payments are deposited directly into a fund in the State treasury established for this purpose and that the State uses such funds in accordance with paragraphs (3) and (4). If the Commission determines at any time that a State is in substantial noncompliance with paragraph (3) or (4), the Commission shall direct that any future alternative compliance payments that would otherwise be paid to such State under this subsection shall instead be paid to the Commission and deposited in the United States Treasury.

"(3) STATE USE OF FUNDS.—As a condition of continued receipt of alternative compliance payments pursuant to this subsection, a State shall use such payments exclusively for the purposes of—

"(A) deploying technologies that generate electricity from renewable energy resources; or

"(B) implementing cost-effective energy efficiency programs to achieve electricity savings.

"(4) REPORTING.—As a condition of continued receipt of alternative compliance payments pursuant to this subsection, a State shall, within 12 months of receipt of any such payments and at 12-month intervals thereafter until such payments are expended, provide a report to the Commission, in accordance with such regulations as the Commission may prescribe, giving a full accounting of the use of such payments, including a detailed description of the activities funded thereby.

"(h) INFORMATION COLLECTION.—The Commission may require any retail electric supplier, renewable electricity generator, or such other entities as the Commission deems appropriate, to provide any information the Commission determines appropriate to carry out this section. Failure to submit such information or submission of false or misleading information under this subsection shall be a violation of this section.

"(i) ENFORCEMENT AND JUDICIAL REVIEW.—

"(1) FAILURE TO SUBMIT CREDITS OR DEMONSTRATE SAVINGS.—If any person fails to comply with the requirements of subsection (b) or (g), such person shall be liable to pay to the Commission a civil penalty equal to the product of—

"(A) double the alternative compliance payment calculated under subsection (g)(1), and

"(B) the aggregate quantity of Federal renewable electricity credits, total annual electricity savings, or equivalent alternative compliance payments that the person failed to submit in violation of the requirements of subsections (b) and (g).

"(2) ENFORCEMENT.—The Commission shall assess a civil penalty under paragraph (1) in accordance with the procedures described in section 31(d) of the Federal Power Act (16 U.S.C. 823b(d)).

"(3) VIOLATION OF REQUIREMENT OF REGULATIONS OR ORDERS.—Any person who violates, or fails or refuses to comply with, any requirement of a regulation promulgated or order issued under this section shall be subject to a civil penalty under section 316A(b) of the Federal Power Act (16 U.S.C. 825o–1). Such penalty shall be assessed by the Commission in the same manner as in the case of a violation referred to in section 316A(b) of such Act.

"(j) JUDICIAL REVIEW.—Any person aggrieved by a final action taken by the Commission under this section, other than the assessment of a civil penalty under subsection (i), may use the procedures for review described in section 313 of the Federal Power Act (16 U.S.C. 825l). For purposes of this paragraph, references to an order in section 313 of such Act shall be deemed to refer also to all other final actions of the Commission under this section other than the assessment of a civil penalty under subsection (i).

"(k) SAVINGS PROVISIONS.—Nothing in this section shall—

"(1) diminish or qualify any authority of a State or political subdivision of a State to—

"(A) adopt or enforce any law or regulation respecting renewable electricity or energy efficiency, including any law or regulation establishing requirements more stringent than those established by this section, provided that no such law or regulation may relieve any person of any requirement otherwise applicable under this section; or

"(B) regulate the acquisition and disposition of Federal renewable electricity credits by retail electric suppliers within the jurisdiction of such State or political subdivision, including the authority to require such retail electric supplier to acquire and submit to the Secretary for retirement Federal renewable electricity credits in excess of those submitted under this section; or

"(2) affect the application of, or the responsibility for compliance with, any other provision of law or regulation, including environmental and licensing requirements.

"(l) SUNSET.—This section expires on December 31, 2040.".

(b) CONFORMING AMENDMENT.—The table of contents set forth in section 1(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 and following) is amended by inserting after the item relating to section 609 the following:

"Sec. 610. Combined efficiency and renewable electricity standard.".

SEC. 102. CLARIFYING STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.

Section 210 of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end thereof:

"(o) CLARIFICATION OF STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.—Notwithstanding any other provision of this Act or the Federal Power Act, a State legislature or regulatory authority may set the rates for a sale of electric energy by a facility generating electric energy from renewable energy sources pursuant to a State-approved production incentive program under which the facility voluntarily sells electric energy. For purposes of this subsection, 'State-approved production incentive program' means a requirement imposed pursuant to State law, or by a State regulatory authority acting within its authority under State law, that an electric utility purchase renewable energy (as defined in section 609 of this Act) at a specified rate.".

Subtitle B—Carbon Capture and Sequestration

SEC. 111. NATIONAL STRATEGY.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator, in consultation with the Secretary of Energy and the heads of such other relevant Federal agencies as the President may designate, shall submit to Congress a report setting forth a unified and comprehensive strategy to address the key legal, regulatory and other barriers to the commercial-scale deployment of carbon capture and sequestration.

(b) BARRIERS.— The report under this section shall—

(1) identify those regulatory, legal, and other gaps and barriers that could be addressed by a Federal agency using existing statutory authority, those, if any, that require Federal legislation, and those that would be best addressed at the State or regional level;

(2) identify regulatory implementation challenges, including those related to approval of State programs and delegation of authority for permitting; and

(3) recommend rulemakings, Federal legislation, or other actions that should be taken to further evaluate and address such barriers.

SEC. 112. REGULATIONS FOR GEOLOGIC SEQUESTRATION SITES.

(a) COORDINATED CERTIFICATION AND PERMITTING PROCESS.—Title VIII of the Clean Air Act, as added by section 331 of this Act, is amended by adding after section 812 (as added by section 116 of this Act) the following:

"SEC. 813. GEOLOGIC SEQUESTRATION SITES.

"(a) COORDINATED PROCESS.—The Administrator shall establish a coordinated approach to certifying and permitting geologic sequestration, taking into consideration all relevant statutory authorities. In establishing such approach, the Administrator shall—

"(1) take into account, and reduce redundancy with, the requirements of section 1421 of the Safe Drinking Water Act (42 U.S.C. 300h), as amended by section 112(b) of the American Clean Energy and Security Act of 2009, including the rulemaking for geologic sequestration wells described at 73 Fed. Reg. 43491-541 (July 25, 2008); and

"(2) to the extent practicable, reduce the burden on certified entities and implementing authorities.

"(b) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator shall promulgate regulations to protect human health and the environment by minimizing the risk of escape to the atmosphere of carbon dioxide injected for purposes of geologic sequestration.

"(c) REQUIREMENTS.—The regulations under subsection (b) shall include—

"(1) a process to obtain certification for geologic sequestration under this section; and

"(2) requirements for—

"(A) monitoring, record keeping, and reporting for emissions associated with injection into, and escape from, geologic sequestration sites, taking into account any requirements or protocols developed under section 713;

"(B) public participation in the certification process that maximizes transparency;

"(C) the sharing of data between States, Indian tribes, and the Environmental Protection Agency; and

"(D) other elements or safeguards necessary to achieve the purpose set forth in subsection (b).

"(d) REPORT.—Not later than 2 years after the promulgation of regulations under subsection (b), and at 3-year intervals thereafter, the Administrator shall deliver to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on geologic sequestration in the United States, and, to the extent relevant, other countries in North America. Such report shall include—

"(1) data regarding injection, emissions to the atmosphere, if any, and performance of active and closed geologic sequestration sites, including those where enhanced hydrocarbon recovery operations occur;

"(2) an evaluation of the performance of relevant Federal environmental regulations and programs in ensuring environmentally protective geologic sequestration practices;

"(3) recommendations on how such programs and regulations should be improved or made more effective; and

"(4) other relevant information.".

(b) SAFE DRINKING WATER ACT STANDARDS.—Section 1421 of the Safe Drinking Water Act (42 U.S.C. 300h) is amended by inserting after subsection (d) the following:

"(e) CARBON DIOXIDE GEOLOGIC SEQUESTRATION WELLS.—

"(1) IN GENERAL.—Not later than 1 year after the date of enactment of this subsection, the Administrator shall promulgate regulations under subsection (a) for carbon dioxide geologic sequestration wells.

"(2) FINANCIAL RESPONSIBILITY.—The regulations referred to in paragraph (1) shall include requirements for maintaining evidence of financial responsibility, including financial responsibility for emergency and remedial response, well plugging, site closure, and post-injection site care. Financial responsibility may be established for carbon dioxide geologic sequestration wells in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, trust, standby trust, surety bond, letter of credit, qualification as a self-insurer, or any other method satisfactory to the Administrator.".

SEC. 113. STUDIES AND REPORTS.

(a) STUDY OF LEGAL FRAMEWORK FOR GEOLOGIC SEQUESTRATION SITES.—

(1) ESTABLISHMENT OF TASK FORCE.—As soon as practicable, but not later than 6 months after the date of enactment of this Act, the Administrator shall establish a task force to be composed of an equal number of subject matter experts, nongovernmental organizations with expertise in environmental policy, academic experts with expertise in environmental law, State officials with environmental expertise, representatives of State Attorneys General, and members of the private sector, to conduct a study of—

(A) existing Federal environmental statutes, State environmental statutes, and State common law that apply to geologic sequestration sites for carbon dioxide, including the ability of such laws to serve as risk management tools;

(B) the existing statutory framework, including Federal and State laws, that apply to harm and damage to the environment or public health at closed sites where carbon dioxide injection has been used for enhanced hydrocarbon recovery;

(C) the statutory framework, environmental health and safety considerations, implementation issues, and financial implications of potential models for Federal, State, or private sector assumption of liabilities and financial responsibilities with respect to closed geologic sequestration sites;

(D) private sector mechanisms, including insurance and bonding, that may be available to manage environmental, health and safety risk from closed geologic sequestration sites; and

(E) the subsurface mineral rights, water rights, or property rights issues associated with geologic sequestration of carbon dioxide.

(2) REPORT.—Not later than 18 months after the date of enactment of this Act, the task force established under paragraph (1) shall submit to Congress a report describing the results of the study conducted under that paragraph including any consensus recommendations of the task force.

(b) ENVIRONMENTAL STATUTES.—

(1) STUDY.—The Administrator shall conduct a study examining how, and under what circumstances, the environmental statutes for which the Environmental Protection Agency has responsibility would apply to carbon dioxide injection and geologic sequestration activities.

(2) REPORT.—Not later than 1 year after the date of enactment of this Act, the Administrator shall submit to Congress a report describing the results of the study conducted under paragraph (1).

SEC. 114. CARBON CAPTURE AND SEQUESTRATION DEMONSTRATION AND EARLY DEPLOYMENT PROGRAM.

(a) DEFINITIONS.—For purposes of this section:

(1) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(2) DISTRIBUTION UTILITY.—The term "distribution utility" means an entity that distributes electricity directly to retail consumers under a legal, regulatory, or contractual obligation to do so.

(3) ELECTRIC UTILITY.—The term "electric utility" has the meaning provided by section 3(22) of the Federal Power Act (16 U.S.C. 796(22)).

(4) FOSSIL FUEL-BASED ELECTRICITY.—The term "fossil fuel-based electricity" means electricity that is produced from the combustion of fossil fuels.

(5) FOSSIL FUEL.—The term "fossil fuel" means coal, petroleum, natural gas or any derivative of coal, petroleum, or natural gas.

(6) CORPORATION.—The term "Corporation" means the Carbon Storage Research Corporation established in accordance with this section.

(7) QUALIFIED INDUSTRY ORGANIZATION.—The term "qualified industry organization" means the Edison Electric Institute, the American Public Power Association, the National Rural Electric Cooperative Association, a successor organization of such organizations, or a group of owners or operators of distribution utilities delivering fossil fuel-based electricity who collectively represent at least 20 percent of the volume of fossil fuel-based electricity delivered by distribution utilities to consumers in the United States.

(8) RETAIL CONSUMER.—The term "retail consumer" means an end-user of electricity.

(b) CARBON STORAGE RESEARCH CORPORATION.—

(1) ESTABLISHMENT.—

(A) REFERENDUM.—Qualified industry organizations may conduct, at their own expense, a referendum among the owners or operators of distribution utilities delivering fossil fuel-based electricity for the creation of a Carbon Storage Research Corporation. Such referendum shall be conducted by an independent auditing firm agreed to by the qualified industry organiza-

tions. Voting rights in such referendum shall be based on the quantity of fossil fuel-based electricity delivered to consumers in the previous calendar year or other representative period as determined by the Secretary pursuant to subsection (f). Upon approval of those persons representing two-thirds of the total quantity of fossil fuel-based electricity delivered to retail consumers, the Corporation shall be established unless opposed by the State regulatory authorities pursuant to subparagraph (B). All distribution utilities voting in the referendum shall certify to the independent auditing firm the quantity of fossil fuel-based electricity represented by their vote.

(B) STATE REGULATORY AUTHORITIES.—Upon its own motion or the petition of a qualified industry organization, each State regulatory authority shall consider its support or opposition to the creation of the Corporation under subparagraph (A). State regulatory authorities may notify the independent auditing firm referred to in subparagraph (A) of their views on the creation of the Corporation within 180 days after the date of enactment of this Act. If 40 percent or more of the State regulatory authorities submit to the independent auditing firm written notices of opposition, the Corporation shall not be established notwithstanding the approval of the qualified industry organizations as provided in subparagraph (A).

(2) TERMINATION.—The Corporation shall be authorized to collect assessments and conduct operations pursuant to this section for a 10-year period from the date 6 months after the date of enactment of this Act. After such 10-year period, the Corporation is no longer authorized to collect assessments and shall be dissolved on the date 15 years after such date of enactment, unless the period is extended by an Act of Congress.

(3) GOVERNANCE.—The Corporation shall operate as a division or affiliate of the Electric Power Research Institute (referred to in this section as "EPRI") and be managed by a Board of not more than 15 voting members responsible for its operations, including compliance with this section. EPRI, in consultation with the Edison Electric Institute, the American Public Power Association and the National Rural Electric Cooperative Association shall appoint the Board members under clauses (i), (ii), and (iii) of subparagraph (A) from among candidates recommended by those organizations. At least a majority of the Board members appointed by EPRI shall be representatives of distribution utilities subject to assessments under subsection (d).

(A) MEMBERS.—The Board shall include at least one representative of each of the following:

(i) Investor-owned utilities.
(ii) Utilities owned by a State agency or a municipality.
(iii) Rural electric cooperatives.
(iv) Fossil fuel producers.
(v) Nonprofit environmental organizations.
(vi) Independent generators or wholesale power providers.
(vii) Consumer groups.

(B) NONVOTING MEMBERS.—The Board shall also include as additional nonvoting Members the Secretary of Energy or his designee and 2 representatives of State regulatory authorities as defined in section 3(17) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602(17)), each designated by the National Association of State Regulatory Utility Commissioners from States that are not within the same transmission interconnection.

(4) COMPENSATION.—Corporation Board members shall receive no compensation for their services, nor shall Corporation Board members be reimbursed for expenses relating to their service.

(5) TERMS.—Corporation Board members shall serve terms of 4 years and may serve not more than 2 full consecutive terms. Members filling unexpired terms may serve not more than a total of 8 consecutive years. Former members of the Corporation Board may be reappointed to the Corporation Board if they have not been members for a period of 2 years. Initial appointments to the Corporation Board shall be for terms of 1, 2, 3, and 4 years, staggered to provide for the selection of 3 members each year.

(6) STATUS OF CORPORATION.—The Corporation shall not be considered to be an agency, department, or instrumentality of the United States, and no officer or director or employee of the Corporation shall be considered to be an officer or employee of the United States Government, for purposes of title 5 or title 31 of the United States Code, or for any other purpose, and no funds of the Corporation shall be treated as public money for purposes of chapter 33 of title 31, United States Code, or for any other purpose.

(c) FUNCTIONS AND ADMINISTRATION OF THE CORPORATION.—

(1) IN GENERAL.—The Corporation shall establish and administer a program to accelerate the commercial availability of carbon dioxide capture and storage technologies and methods, including technologies which capture and store, or capture and convert, carbon dioxide. Under such program competitively awarded grants, contracts, and financial assistance shall be provided and entered into with eligible entities. Except as provided in paragraph (8), the Corporation shall use all funds derived from assessments under subsection (d) to issue grants and contracts to eligible entities.

(2) PURPOSE.—The purposes of the grants, contracts, and assistance under this subsection shall be to support commercial-scale demonstrations of carbon capture or storage technology projects capable of advancing the technologies to commercial readiness. Such projects should encompass a range of different coal and other fossil fuel varieties, be geographically diverse, involve diverse storage media, and employ capture or storage, or capture and conversion, technologies potentially suitable either for new or for retrofit applications. The Corporation shall seek, to the extent feasible, to support at least 5 commercial-scale demonstration projects integrating carbon capture and sequestration or conversion technologies.

(3) ELIGIBLE ENTITIES.—Entities eligible for grants, contracts or assistance under this subsection may include distribution utilities, electric utilities and other private entities, academic institutions, national laboratories, Federal research agencies, State research agencies, nonprofit organizations, or consortiums of 2 or more entities. Pilot-scale and similar small-scale projects are not eligible for support by the Corporation. Owners or developers of projects supported by the Corporation shall, where appropriate, share in the costs of such projects.

(4) GRANTS FOR EARLY MOVERS.—Fifty percent of the funds raised under this section shall be provided in the form of grants to electric utilities that had, prior to the award of any grant under this section, committed resources to deploy a large scale electricity generation unit with integrated carbon capture and sequestration or conversion applied to a substantial portion of the unit's carbon dioxide emissions. Grant funds shall be provided to defray costs incurred by such electricity utilities for at least 5 such electricity generation units.

(5) ADMINISTRATION.—The members of the Board of Directors of the Corporation shall elect a Chairman and other officers as necessary, may establish committees and subcommittees of the Corporation, and shall adopt rules and bylaws for the conduct of business and the implementation of this section. The Board shall appoint an Executive Director and professional support staff who may be employees of the Electric Power Research Institute (EPRI). After consultation with the Technical Advisory Committee established under subsection (j), the Secretary, and the Director of the National Energy Technology Laboratory to obtain advice and recommendations on plans, programs, and project selection criteria, the Board shall establish priorities for grants, contracts, and assistance; publish requests for proposals for grants, contracts, and assistance; and award grants, contracts, and assistance competitively, on the basis of merit, after the establishment of procedures that provide for scientific peer review by the Technical Advisory Committee. The Board shall give preference to applications that reflect the best overall value and prospect for achieving the purposes of the section, such as those which demonstrate an integrated approach for capture and storage or capture and conversion technologies. The Board members shall not participate in making grants or awards to entities with whom they are affiliated.

(6) USES OF GRANTS, CONTRACTS, AND ASSISTANCE.—A grant, contract, or other assistance provided under this subsection may be used to purchase carbon dioxide when needed to conduct tests of carbon dioxide storage sites, in the case of established projects that are storing carbon dioxide emissions, or for other purposes consistent with the purposes of this section. The Corporation shall make publicly available at no cost information learned as a result of projects which it supports financially.

(7) INTELLECTUAL PROPERTY.—The Board shall establish policies regarding the ownership of intellectual property developed as a result of Corporation grants and other forms of technology support. Such policies shall encourage individual ingenuity and invention.

(8) ADMINISTRATIVE EXPENSES.—Up to 5 percent of the funds collected in any fiscal year under subsection (d) may be used for the administrative expenses of operating the Corporation (not including costs incurred in the determination and collection of the assessments pursuant to subsection (d)).

(9) PROGRAMS AND BUDGET.—Before August 1 each year, the Corporation, after consulting with the Technical Advisory Committee and the Secretary and

the Director of the Department's National Energy Technology Laboratory and other interested parties to obtain advice and recommendations, shall publish for public review and comment its proposed plans, programs, project selection criteria, and projects to be funded by the Corporation for the next calendar year. The Corporation shall also publish for public review and comment a budget plan for the next calendar year, including the probable costs of all programs, projects, and contracts and a recommended rate of assessment sufficient to cover such costs. The Secretary may recommend programs and activities the Secretary considers appropriate. The Corporation shall include in the first publication it issues under this paragraph a strategic plan or roadmap for the achievement of the purposes of the Corporation, as set forth in paragraph (2).

(10) RECORDS; AUDITS.—The Corporation shall keep minutes, books, and records that clearly reflect all of the acts and transactions of the Corporation and make public such information. The books of the Corporation shall be audited by a certified public accountant at least once each fiscal year and at such other times as the Corporation may designate. Copies of each audit shall be provided to the Congress, all Corporation board members, all qualified industry organizations, each State regulatory authority and, upon request, to other members of the industry. If the audit determines that the Corporation's practices fail to meet generally accepted accounting principles the assessment collection authority of the Corporation under subsection (d) shall be suspended until a certified public accountant renders a subsequent opinion that the failure has been corrected. The Corporation shall make its books and records available for review by the Secretary or the Comptroller General of the United States.

(11) PUBLIC ACCESS.—The Corporation Board's meetings shall be open to the public and shall occur after at least 30 days advance public notice. Meetings of the Board of Directors may be closed to the public where the agenda of such meetings includes only confidential matters pertaining to project selection, the award of grants or contracts, personnel matters, or the receipt of legal advice. The minutes of all meetings of the Corporation shall be made available to and readily accessible by the public.

(12) ANNUAL REPORT.—Each year the Corporation shall prepare and make publicly available a report which includes an identification and description of all programs and projects undertaken by the Corporation during the previous year. The report shall also detail the allocation or planned allocation of Corporation resources for each such program and project. The Corporation shall provide its annual report to the Congress, the Secretary, each State regulatory authority, and upon request to the public. The Secretary shall, not less than 60 days after receiving such report, provide to the President and Congress a report assessing the progress of the Corporation in meeting the objectives of this section.

(d) ASSESSMENTS.—

(1) AMOUNT.—(A) In all calendar years following its establishment, the Corporation shall collect an assessment on distribution utilities for all fossil fuel-based electricity delivered directly to retail consumers (as determined under subsection (f)). The assessments shall reflect the relative carbon dioxide emission rates of different fossil fuel-based electricity, and initially shall be not less than the following amounts for coal, natural gas, and oil:

Fuel type	Rate of assessment per kilowatt hour
Coal	$0.00043
Natural Gas	$0.00022
Oil	$0.00032.

(B) The Corporation is authorized to adjust the assessments on fossil fuel-based electricity to reflect changes in the expected quantities of such electricity from different fuel types, such that the assessments generate not less than $1.0 billion and not more than $1.1 billion annually. The Corporation is authorized to supplement assessments through additional financial commitments.

(2) INVESTMENT OF FUNDS.—Pending disbursement pursuant to a program, plan, or project, the Corporation may invest funds collected through assessments under this subsection, and any other funds received by the Corporation, only in obligations of the United States or any agency thereof, in general obligations of any State or any political subdivision thereof, in any interest-bearing account or certificate of deposit of a bank that is a member of the Federal Reserve System, or in obligations fully guaranteed as to principal and interest by the United States.

(3) REVERSION OF UNUSED FUNDS.—If the Corporation does not disburse, dedicate or assign 75 percent or more of the available proceeds of the assessed fees in any calendar year 7 or more years following its establishment, due to an absence of qualified projects or similar circumstances, it shall reimburse the re-

maining undedicated or unassigned balance of such fees, less administrative and other expenses authorized by this section, to the distribution utilities upon which such fees were assessed, in proportion to their collected assessments.

(e) ERCOT.—

(1) ASSESSMENT, COLLECTION, AND REMITTANCE.—(A) Notwithstanding any other provision of this section, within ERCOT, the assessment provided for in subsection (d) shall be—

(i) levied directly on qualified scheduling entities, or their successor entities;

(ii) charged consistent with other charges imposed on qualified scheduling entities as a fee on energy used by the load-serving entities; and

(iii) collected and remitted by ERCOT to the Corporation in the amounts and in the same manner as set forth in subsection (d).

(B) The assessment amounts referred to in subparagraph (A) shall be—

(i) determined by the amount and types of fossil fuel-based electricity delivered directly to all retail customers in the prior calendar year beginning with the year ending immediately prior to the period described in subsection (b)(2); and

(ii) take into account the number of renewable energy credits retired by the load-serving entities represented by a qualified scheduling entity within the prior calendar year.

(2) ADMINISTRATION EXPENSES.—Up to 1 percent of the funds collected in any fiscal year by ERCOT under the provisions of this subsection may be used for the administrative expenses incurred in the determination, collection and remittance of the assessments to the Corporation.

(3) AUDIT.—ERCOT shall provide a copy of its annual audit pertaining to the administration of the provisions of this subsection to the Corporation.

(4) DEFINITIONS.—For the purposes of this subsection:

(A) The term "ERCOT" means the Electric Reliability Council of Texas.

(B) The term "load-serving entities" has the meaning adopted by ERCOT Protocols and in effect on the date of enactment of this Act.

(C) The term "qualified scheduling entities" has the meaning adopted by ERCOT Protocols and in effect on the date of enactment of this Act.

(D) The term "renewable energy credit" has the meaning as promulgated and adopted by the Public Utility Commission of Texas pursuant to section 39.904(b) of the Public Utility Regulatory Act of 1999, and in effect on the date of enactment of this Act.

(f) DETERMINATION OF FOSSIL FUEL-BASED ELECTRICITY DELIVERIES.—

(1) FINDINGS.—The Congress finds that:

(A) The assessments under subsection (d) are to be collected based on the amount of fossil fuel-based electricity delivered by each distribution utility.

(B) Since many distribution utilities purchase all or part of their retail consumer's electricity needs from other entities, it may not be practical to determine the precise fuel mix for the power sold by each individual distribution utility.

(C) It may be necessary to use average data, often on a regional basis with reference to Regional Transmission Organization ("RTO") or NERC regions, to make the determinations necessary for making assessments.

(2) DOE PROPOSED RULE.—The Secretary, acting in close consultation with the Energy Information Administration, shall issue for notice and comment a proposed rule to determine the level of fossil fuel electricity delivered to retail customers by each distribution utility in the United States during the most recent calendar year or other period determined to be most appropriate. Such proposed rule shall balance the need to be efficient, reasonably precise, and timely, taking into account the nature and cost of data currently available and the nature of markets and regulation in effect in various regions of the country. Different methodologies may be applied in different regions if appropriate to obtain the best balance of such factors.

(3) FINAL RULE.—Within 6 months after the date of enactment of this Act, and after opportunity for comment, the Secretary shall issue a final rule under this subsection for determining the level and type of fossil fuel-based electricity delivered to retail customers by each distribution utility in the United States during the appropriate period. In issuing such rule, the Secretary may consider opportunities and costs to develop new data sources in the future and issue recommendations for the Energy Information Administration or other entities to collect such data. After notice and opportunity for comment the Secretary may, by rule, subsequently update and modify the methodology for making such determinations.

(4) ANNUAL DETERMINATIONS.—Pursuant to the final rule issued under paragraph (3), the Secretary shall make annual determinations of the amounts and types for each such utility and publish such determinations in the Federal Register. Such determinations shall be used to conduct the referendum under subsection (b) and by the Corporation in applying any assessment under this subsection.

(5) REHEARING AND JUDICIAL REVIEW.—The owner or operator of any distribution utility that believes that the Secretary has misapplied the methodology in the final rule in determining the amount and types of fossil fuel electricity delivered by such distribution utility may seek rehearing of such determination within 30 days of publication of the determination in the Federal Register. The Secretary shall decide such rehearing petitions within 30 days. The Secretary's determinations following rehearing shall be final and subject to judicial review in the United States Court of Appeals for the District of Columbia.

(g) COMPLIANCE WITH CORPORATION ASSESSMENTS.—The Corporation may bring an action in the appropriate court of the United States to compel compliance with an assessment levied by the Corporation under this section. A successful action for compliance under this subsection may also require payment by the defendant of the costs incurred by the Corporation in bringing such action.

(h) MIDCOURSE REVIEW.—Not later than 5 years following establishment of the Corporation, the Comptroller General of the United States shall prepare an analysis, and report to Congress, assessing the Corporation's activities, including project selection and methods of disbursement of assessed fees, impacts on the prospects for commercialization of carbon capture and storage technologies, adequacy of funding, and administration of funds. The report shall also make such recommendations as may be appropriate in each of these areas. The Corporation shall reimburse the Government Accountability Office for the costs associated with performing this midcourse review.

(i) RECOVERY OF COSTS.—

(1) IN GENERAL.—A distribution utility whose transmission, delivery, or sales of electric energy are subject to any form of rate regulation shall not be denied the opportunity to recover the full amount of the prudently incurred costs associated with complying with this section, consistent with applicable State or Federal law.

(2) RATEPAYER REBATES.—Regulatory authorities that approve cost recovery pursuant to paragraph (1) may order rebates to ratepayers to the extent that distribution utilities are reimbursed undedicated or unassigned balances pursuant to subsection (d)(3).

(j) TECHNICAL ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—There is established an advisory committee, to be known as the "Technical Advisory Committee".

(2) MEMBERSHIP.—The Technical Advisory Committee shall be comprised of not less than 7 members appointed by the Board from among academic institutions, national laboratories, independent research institutions, and other qualified institutions. No member of the Committee shall be affiliated with EPRI or with any organization having members serving on the Board. At least one member of the Committee shall be appointed from among officers or employees of the Department of Energy recommended to the Board by the Secretary of Energy.

(3) CHAIRPERSON AND VICE CHAIRPERSON.—The Board shall designate one member of the Technical Advisory Committee to serve as Chairperson of the Committee and one to serve as Vice Chairperson of the Committee.

(4) COMPENSATION.—The Board shall provide compensation to members of the Technical Advisory Committee for travel and other incidental expenses and such other compensation as the Board determines to be necessary.

(5) PURPOSE.—The Technical Advisory Committee shall provide independent assessments and technical evaluations, as well as make non-binding recommendations to the Board, concerning Corporation activities, including but not limited to the following:

(A) Reviewing and evaluating the Corporation's plans and budgets described in subsection (c)(9), as well as any other appropriate areas, which could include approaches to prioritizing technologies, appropriateness of engineering techniques, monitoring and verification technologies for storage, geological site selection, and cost control measures.

(B) Making annual non-binding recommendations to the Board concerning any of the matters referred to in subparagraph (A), as well as what types of investments, scientific research, or engineering practices would best further the goals of the Corporation.

(6) PUBLIC AVAILABILITY.—All reports, evaluations, and other materials of the Technical Advisory Committee shall be made available to the public by the Board, without charge, at time of receipt by the Board.

(k) LOBBYING RESTRICTIONS.—No funds collected by the Corporation shall be used in any manner for influencing legislation or elections, except that the Corporation may recommend to the Secretary and the Congress changes in this section or other statutes that would further the purposes of this section.

(l) DAVIS-BACON COMPLIANCE.—The Corporation shall ensure that entities receiving grants, contracts, or other financial support from the Corporation for the project activities authorized by this section are in compliance with the Davis-Bacon Act (40 U.S.C. 276a–276a–5).

SEC. 115. COMMERCIAL DEPLOYMENT OF CARBON CAPTURE AND SEQUESTRATION TECHNOLOGIES.

Part H of title VII of the Clean Air Act (as added by section 321 of this Act) is amended by adding the following new section after section 785:

"SEC. 786. COMMERCIAL DEPLOYMENT OF CARBON CAPTURE AND SEQUESTRATION TECHNOLOGIES.

"(a) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator shall promulgate regulations providing for the distribution of emission allowances allocated pursuant to section 782(f), pursuant to the requirements of this section, to support the commercial deployment of carbon capture and sequestration technologies in both electric power generation and industrial operations.

"(b) ELIGIBILITY CRITERIA.—To be eligible to receive emission allowances under this section, the owner or operator of a project must—

"(1) implement carbon capture and sequestration technology—

"(A) at an electric generating unit that—

"(i) has a nameplate capacity of 200 megawatts or more;

"(ii) in the case of a retrofit application, applies the carbon capture and sequestration technology to the flue gas from at least 200 megawatts of the total nameplate generating capacity of the unit, provided that clause (i) shall apply without exception;

"(iii) derives at least 50 percent of its annual fuel input from coal, petroleum coke, or any combination of these 2 fuels; and

"(iv) upon implementation of capture and sequestration technology, will achieve an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by—

"(I) the unit, measured on an annual basis, determined in accordance with section 812(b)(2); or

"(II) in the case of retrofit applications under clause (ii), the treated portion of flue gas from the unit, measured on an annual basis, determined in accordance with section 812(b)(2); or

"(B) at an industrial source that—

"(i) absent carbon capture and sequestration, would emit greater than 50,000 tons per year of carbon dioxide;

"(ii) upon implementation, will achieve an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the emission point, measured on an annual basis, determined in accordance with section 812(b)(2); and

"(iii) does not produce a liquid transportation fuel from a solid fossil-based feedstock;

"(2) geologically sequester carbon dioxide at a site that meets all applicable permitting and certification requirements for geologic sequestration, or, pursuant to such requirements as the Administrator may prescribe by regulation, convert captured carbon dioxide to a stable form that will safely and permanently sequester such carbon dioxide;

"(3) meet all other applicable State and Federal permitting requirements; and

"(4) be located in the United States.

"(c) PHASE I DISTRIBUTION TO ELECTRIC GENERATING UNITS.—

"(1) APPLICATION.—This subsection shall apply only to projects at the first 6 gigawatts of electric generating units, measured in cumulative generating capacity of such units.

"(2) DISTRIBUTION.—The Administrator shall distribute emission allowances allocated under section 782(f) to the owner or operator of each eligible project at an electric generating unit in a quantity equal to the quotient obtained by dividing—

"(A) the product obtained by multiplying—

"(i) the number of metric tons of carbon dioxide emissions avoided through capture and sequestration of emissions by the project, as determined pursuant to such methodology as the Administrator shall prescribe by regulation; and

"(ii) a bonus allowance value, pursuant to paragraph (3); by

"(B) the average fair market value of an emission allowance during the preceding year.

"(3) BONUS ALLOWANCE VALUES.—

"(A) For a generating unit achieving the capture and sequestration of 85 percent or more of the carbon dioxide that otherwise would be emitted by such unit, the bonus allowance value shall be $90.

"(B) The Administrator shall by regulation establish a bonus allowance value for each rate of lower capture and sequestration achieved by a generating unit, from a minimum of $50 per ton for a 50 percent rate and varying directly with increasing rates of capture and sequestration up to $90 per ton for an 85 percent rate.

"(C) For a generating unit that achieves the capture and sequestration of at least 50 percent of the carbon dioxide that otherwise would be emitted by such unit by not later than January 1, 2017, the otherwise applicable bonus allowance value under this paragraph shall be increased by $10, provided that the owner of such unit notifies the Administrator of its intent to achieve such rate of capture and sequestration by not later than January 1, 2012.

"(D) For a carbon capture and sequestration project sequestering in a geological formation for purposes of enhanced hydrocarbon recovery, the Administrator shall, by regulation, reduce the applicable bonus allowance value under this paragraph to reflect the lower net cost of the project when compared to sequestration into geological formations solely for purposes of sequestration.

"(E) All monetary values in this section shall be adjusted annually for inflation.

"(d) PHASE II DISTRIBUTION TO ELECTRIC GENERATING UNITS.—

"(1) APPLICATION.—This subsection shall apply only to the distribution of emission allowances to carbon capture and sequestration projects at electric generating units after the capacity threshold identified in subsection (c)(1) is reached.

"(2) REGULATIONS.—Not later than 2 years prior to the date on which the capacity threshold identified in subsection (c)(1) is projected to be reached, the Administrator shall promulgate regulations to govern the distribution of emission allowances to the owners or operators of eligible projects under this subsection.

"(3) REVERSE AUCTIONS.—

"(A) IN GENERAL.—Except as provided in paragraph (4), the regulations promulgated under paragraph (2) shall provide for the distribution of emission allowances to the owners or operators of eligible projects under this subsection through reverse auctions, which shall be held no less frequently than once each calendar year. The Administrator may establish a separate auction for each of no more than 5 different project categories, defined on the basis of coal type, capture technology, geological formation type, new unit versus retrofit application, such other factors as the Administrator may prescribe, or any combination thereof. The Administrator may establish appropriate minimum rates of capture and sequestration in implementing this paragraph.

"(B) AUCTION PROCESS.—At each reverse auction—

"(i) the Administrator shall solicit bids from eligible projects;

"(ii) eligible projects participating in the auction shall submit a bid including the desired level of carbon dioxide sequestration incentive per ton and the estimated quantity of carbon dioxide that the project will permanently sequester over 10 years; and

"(iii) the Administrator shall select bids, within each auction, for the sequestration amount submitted, beginning with the eligible project submitting the bid for the lowest level of sequestration incentive on a per ton basis and meeting such other requirements as the Administrator may specify, until the amount of funds available for the reverse auction is committed.

"(C) FORM OF DISTRIBUTION.—The Administrator shall provide deployment incentives to the owners or operators of eligible projects selected through a reverse auction under this paragraph pursuant to a formula equivalent to that described in subsection (c)(2), except that the incentive

level that is bid by the entity shall be substituted for the bonus allowance value.

"(4) ALTERNATIVE DISTRIBUTION METHOD.—

"(A) IN GENERAL.—If the Administrator determines that reverse auctions would not provide for efficient and cost-effective commercial deployment of carbon capture and sequestration technologies, the Administrator may instead, through regulations promulgated under paragraph (2) or (5), prescribe a schedule for the award of bonus allowances to the owners or operators of eligible projects under this subsection, in accordance with the requirements of this paragraph.

"(B) MULTIPLE TRANCHES.—The Administrator shall divide emission allowances available for distribution to the owners or operators of eligible projects into a series of tranches, each supporting the deployment of a specified quantity of cumulative electric generating capacity utilizing carbon capture and sequestration technology, each of which shall not be greater than 6 gigawatts.

"(C) METHOD OF DISTRIBUTION.—The Administrator shall distribute emission allowances within each tranche, on a first-come, first-served basis—

"(i) based on the date of full-scale operation of capture and sequestration technology; and

"(ii) pursuant to a formula, similar to that set forth in subsection (c)(2) (except that the Administrator shall prescribe bonus allowance values different than those set forth in subsection (c)(2)), establishing the number of allowances to be distributed per ton of carbon dioxide sequestered by the project.

"(D) REQUIREMENTS.—For each tranche established pursuant to subparagraph (A), the Administrator shall establish a schedule for distributing emission allowances that—

"(i) is based on a sliding scale that provides higher bonus allowance values for projects achieving higher rates of capture and sequestration;

"(ii) for each capture and sequestration rate, establishes a bonus allowance value that is lower than that established for such rate in the previous tranche (or, in the case of the first tranche, than that established for such rate under subsection (c)(3)); and

"(iii) may establish different bonus allowance levels for no more than 5 different project categories, defined by coal type, capture technology, geological formation type, new unit versus retrofit application, such other factors as the Administrator may prescribe, or any combination thereof.

"(E) CRITERIA FOR ESTABLISHING BONUS ALLOWANCE VALUES.—In setting bonus allowance values under this paragraph, the Administrator shall seek to cover no more than the reasonable incremental capital and operating costs of a project that are attributable to implementation of carbon capture, transportation, and sequestration technologies, taking into account—

"(i) the reduced cost of compliance with section 722 of this Act;

"(ii) the reduced cost associated with sequestering in a geological formation for purposes of enhanced hydrocarbon recovery when compared to sequestration into geological formations solely for purposes of sequestration;

"(iii) the relevant factors defining the project category; and

"(iv) such other factors as the Administrator determines are appropriate.

"(5) REVISION OF REGULATIONS.—The Administrator shall review, and as appropriate revise, the applicable regulations under this subsection no less frequently than every 8 years.

"(e) LIMITS FOR CERTAIN ELECTRIC GENERATING UNITS.—

"(1) DEFINITIONS.—For purposes of this subsection, the terms 'covered EGU' and 'initially permitted' shall have the meaning given those terms in section 812 of this Act.

"(2) COVERED EGUS INITIALLY PERMITTED FROM 2009 THROUGH 2014.—For a covered EGU that is initially permitted on or after January 1, 2009, and before January 1, 2015, the Administrator shall reduce the quantity of emission allowances that the owner or operator of such covered EGU would otherwise be eligible to receive under this section as follows:

"(A) In the case of a unit commencing operation on or before January 1, 2019, if the date in clause (ii)(I) is earlier than the date in clause (ii)(II), by the product of—

"(i) 20 percent; and

"(ii) the number of years, if any, that have elapsed between—

"(I) the earlier of January 1, 2020, or the date that is 5 years after the commencement of operation of such covered EGU; and

"(II) the first year that such covered EGU achieves (and thereafter maintains) an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the unit, measured on an annual basis, as determined in accordance with section 812(b)(2).

"(B) In the case of a unit commencing operation after January 1, 2019, by the product of—

"(i) 20 percent; and

"(ii) the number of years between—

"(I) the commencement of operation of such covered EGU; and

"(II) the first year that such covered EGU achieves (and thereafter maintains) an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the unit, measured on an annual basis, as determined in accordance with section 812(b)(2).

"(3) COVERED EGUS INITIALLY PERMITTED FROM 2015 THROUGH 2019.—The owner or operator of a covered EGU that is initially permitted on or after January 1, 2015, and before January 1, 2020, shall be ineligible to receive emission allowances pursuant to this section if such unit, upon commencement of operations (and thereafter), does not achieve and maintain an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the unit, measured on an annual basis, as determined in accordance with section 812(b)(2).

"(f) INDUSTRIAL SOURCES.—

"(1) ALLOWANCES.—The Administrator may distribute not more than 15 percent of the allowances allocated under section 782(a) for any vintage year to the owners or operators of eligible industrial sources to support the commercial-scale deployment of carbon capture and sequestration technologies at such sources.

"(2) DISTRIBUTION.—The Administrator shall, by regulation, prescribe requirements for the distribution of emission allowances to the owners or operators of industrial sources under this subsection, based on a bonus allowance formula that awards allowances to qualifying projects on the basis of tons of carbon dioxide captured and permanently sequestered. The Administrator may provide for the distribution of emission allowances pursuant to—

"(A) a reverse auction method, similar to that described under subsection (d)(3), including the use of separate auctions for different project categories; or

"(B) an incentive schedule, similar to that described under subsection (d)(4), which shall ensure that incentives are set so as to satisfy the requirement described in subsection (d)(4)(E).

"(3) REVISION OF REGULATIONS.—The Administrator shall review, and as appropriate revise, the applicable regulations under this subsection no less frequently than every 8 years.

"(g) LIMITATIONS.—Allowances may be distributed under this section only for tons of carbon dioxide emissions that have already been captured and sequestered. A qualifying project may receive annual emission allowances under this section only for the first 10 years of operation. No greater than 72 gigawatts of total cumulative generating capacity (including industrial applications, measured by such equivalent metric as the Administrator may designate) may receive emission allowances under this section. Upon reaching the limit described in the preceding sentence, any emission allowances that are allocated for carbon capture and sequestration deployment under section 782(f) and are not yet obligated under this section shall be treated as allowances not designated for distribution for purposes of section 782(r).

"(h) EXHAUSTION OF ACCOUNT AND ANNUAL ROLL-OVER OF SURPLUS ALLOWANCES.—

"(1) In distributing bonus allowances under this subsection, the Administrator shall ensure that qualifying projects receiving allowances receive distributions for 10 years.

"(2) If the Administrator determines that the allowances allocated under section 782(f) with a vintage year that matches the year of distribution will be exhausted once the estimated full 10-year distributions will be provided to current eligible participants, the Administrator shall provide to new eligible projects allowances from vintage years after the year of the distribution.

"(i) RETROFIT APPLICATIONS.—(1) In calculating bonus allowance values for retrofit applications eligible under subsections (b)(1)(A)(ii) and (b)(1)(A)(iv)(II), the Adminis-

trator shall apply the required capture rates with respect to the treated portion of flue gas from the unit.

"(2) No additional projects shall be eligible for allowances under subsections (b)(1)(A)(ii) and (b)(1)(A)(iv)(II) as of such time as the Administrator reports, pursuant to section 812(d), that carbon capture and sequestration retrofit projects at electric generating units that are eligible for allowances under this section have been applied, in the aggregate, to the flue gas generated by 1 gigawatt of total cumulative generating capacity.

"(j) DAVIS-BACON COMPLIANCE.—All laborers and mechanics employed on projects funded directly by or assisted in whole or in part by this section through the use of bonus allowances shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV, chapter 31, part A of subtitle II of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.".

SEC. 116. PERFORMANCE STANDARDS FOR COAL-FUELED POWER PLANTS.

(a) IN GENERAL.—Title VIII of the Clean Air Act (as added by section 331 of this Act) is amended by adding the following new section after section 811:

"SEC. 812. PERFORMANCE STANDARDS FOR NEW COAL-FIRED POWER PLANTS.

"(a) DEFINITIONS.—For purposes of this section:

"(1) COVERED EGU.—The term 'covered EGU' means a utility unit that is required to have a permit under section 503(a) and is authorized under state or federal law to derive at least 30 percent of its annual heat input from coal, petroleum coke, or any combination of these fuels.

"(2) INITIALLY PERMITTED.—The term 'initially permitted' means that the owner or operator has received a Clean Air Act preconstruction approval or permit, for the covered EGU as a new (not a modified) source, but administrative review or appeal of such approval or permit has not been exhausted. A subsequent modification of any such approval or permits, ongoing administrative or court review, appeals, or challenges, or the existence or tolling of any time to pursue further review, appeals, or challenges shall not affect the date on which a covered EGU is considered to be initially permitted under this paragraph.

"(b) STANDARDS.—(1) A covered EGU that is initially permitted on or after January 1, 2020, shall achieve an emission limit that is a 65 percent reduction in emissions of the carbon dioxide produced by the unit, as measured on an annual basis, or meet such more stringent standard as the Administrator may establish pursuant to subsection (c).

"(2) A covered EGU that is initially permitted after January 1, 2009, and before January 1, 2020, shall, by the applicable compliance date established under this paragraph, achieve an emission limit that is a 50 percent reduction in emissions of the carbon dioxide produced by the unit, as measured on an annual basis. Compliance with the requirement set forth in this paragraph shall be required by the earliest of the following:

"(A) Four years after the date the Administrator has published pursuant to subsection (d) a report that there are in commercial operation in the United States electric generating units or other stationary sources equipped with carbon capture and sequestration technology that, in the aggregate—

"(i) have a total of at least 4 gigawatts of nameplate generating capacity of which—

"(I) at least 3 gigawatts must be electric generating units; and

"(II) up to 1 gigawatt may be industrial applications, for which capture and sequestration of 3 million tons of carbon dioxide per year on an aggregate annualized basis shall be considered equivalent to 1 gigawatt;

"(ii) include at least 2 electric generating units, each with a nameplate generating capacity of 250 megawatts or greater, that capture, inject, and sequester carbon dioxide into geologic formations other than oil and gas fields; and

"(iii) are capturing and sequestering in the aggregate at least 12 million tons of carbon dioxide per year, calculated on an aggregate annualized basis.

"(B) January 1, 2025.

"(3) If the deadline for compliance with paragraph (2) is January 1, 2025, the Administrator may extend the deadline for compliance by a covered EGU by up to 18 months if the Administrator makes a determination, based on a showing by the owner or operator of the unit, that it will be technically infeasible for the unit to

meet the standard by the deadline. The owner or operator must submit a request for such an extension by no later than January 1, 2022, and the Administrator shall provide for public notice and comment on the extension request.

"(c) REVIEW AND REVISION OF STANDARDS.—Not later than 2025 and at 5-year intervals thereafter, the Administrator shall review the standards for new covered EGUs under this section and shall, by rule, reduce the maximum carbon dioxide emission rate for new covered EGUs to a rate which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

"(d) REPORTS.—Not later than the date 18 months after the date of enactment of this title and semiannually thereafter, the Administrator shall publish a report on the nameplate capacity of units (determined pursuant to subsection (b)(2)(A)) in commercial operation in the United States equipped with carbon capture and sequestration technology, including the information described in subsection (b)(2)(A) (including the cumulative generating capacity to which carbon capture and sequestration retrofit projects meeting the criteria described in section 786(b)(1)(A)(ii) and (b)(1)(A)(iv)(II) has been applied and the quantities of carbon dioxide captured and sequestered by such projects).

"(e) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator shall promulgate regulations to carry out the requirements of this section.".

Subtitle C—Clean Transportation

SEC. 121. ELECTRIC VEHICLE INFRASTRUCTURE.

(a) AMENDMENT OF PURPA.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

"(20) PLUG-IN ELECTRIC DRIVE VEHICLE INFRASTRUCTURE.—

"(A) UTILITY PLAN FOR INFRASTRUCTURE.—Each electric utility shall develop a plan to support the use of plug-in electric drive vehicles, including heavy-duty hybrid electric vehicles. The plan may provide for deployment of electrical charging stations in public or private locations, including street parking, parking garages, parking lots, homes, gas stations, and highway rest stops. Any such plan may also include—

"(i) battery exchange, fast charging infrastructure and other services;

"(ii) triggers for infrastructure deployment based upon market penetration of plug-in electric drive vehicles; and

"(iii) such other elements as the State determines necessary to support plug-in electric drive vehicles.

Each plan under this paragraph shall provide for the deployment of the charging infrastructure or other infrastructure necessary to adequately support the use of plug-in electric drive vehicles.

"(B) SUPPORT REQUIREMENTS.—Each State regulatory authority (in the case of each electric utility for which it has ratemaking authority) and each utility (in the case of a nonregulated utility) shall—

"(i) require that charging infrastructure deployed is interoperable with products of all auto manufacturers to the extent possible; and

"(ii) consider adopting minimum requirements for deployment of electrical charging infrastructure and other appropriate requirements necessary to support the use of plug-in electric drive vehicles.

"(C) COST RECOVERY.—Each State regulatory authority (in the case of each electric utility for which it has ratemaking authority) and each utility (in the case of a nonregulated utility) shall consider whether, and to what extent, to allow cost recovery for plans and implementation of plans.

"(D) SMART GRID INTEGRATION.—The State regulatory authority (in the case of each electric utility for which it has ratemaking authority) and each utility (in the case of a nonregulated utility) shall, in accordance with regulations issued by the Federal Energy Regulatory Commission pursuant to section 1305(d) of the Energy Independence and Security Act of 2007—

"(i) establish any appropriate protocols and standards for integrating plug-in electric drive vehicles into an electrical distribution system, including Smart Grid systems and devices as described in title XIII of the Energy Independence and Security Act of 2007;

"(ii) include, to the extent feasible, the ability for each plug-in electric drive vehicle to be identified individually and to be associated with its owner's electric utility account, regardless of the location that the vehi-

cle is plugged in, for purposes of appropriate billing for any electricity required to charge the vehicle's batteries as well as any crediting for electricity provided to the electric utility from the vehicle's batteries; and

"(iii) review the determination made in response to section 1252 of the Energy Policy Act of 2005 in light of this section, including whether time-of-use pricing should be employed to enable the use of plug-in electric drive vehicles to contribute to meeting peak-load and ancillary service power needs.".

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding the following at the end thereof:

"(7)(A) Not later than 3 years after the date of enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has rate-making authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standard established by paragraph (20) of section 111(d).

"(B) Not later than 4 years after the date of enactment of the this paragraph, each State regulatory authority (with respect to each electric utility for which it has rate-making authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to the standard established by paragraph (20) of section 111(d).".

(2) FAILURE TO COMPLY.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended by adding the following at the end: "In the case of the standards established by paragraph (20) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraph.".

(3) PRIOR STATE ACTIONS.—Section 112(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(d)) is amended by striking "(19)" and inserting "(20)" before "of section 111(d)".

SEC. 122. LARGE-SCALE VEHICLE ELECTRIFICATION PROGRAM.

(a) DEPLOYMENT PROGRAM.—The Secretary of Energy shall establish a program to deploy and integrate plug-in electric drive vehicles into the electricity grid in multiple regions. In carrying out the program, the Secretary may provide financial assistance described under subsection (d), consistent with the goals under subsection (b). The Secretary shall select regions based upon applications for assistance received pursuant to subsection (c).

(b) GOALS.—The goals of the program established pursuant to subsection (a) shall be—

(1) to demonstrate the viability of a vehicle-based transportation system that is not overly dependent on petroleum as a fuel and contributes to lower carbon emissions than a system based on conventional vehicles;

(2) to facilitate the integration of advanced vehicle technologies into electricity distribution areas to improve system performance and reliability;

(3) to demonstrate the potential benefits of coordinated investments in vehicle electrification on personal mobility and a regional grid;

(4) to demonstrate protocols and standards that facilitate vehicle integration into the grid; and

(5) to investigate differences in each region and regulatory environment regarding best practices in implementing vehicle electrification.

(c) APPLICATIONS.—Any State, Indian tribe, or local government (or group of State, Indian tribe, or local governments) may apply to the Secretary of Energy for financial assistance in furthering the regional deployment and integration into the electricity grid of plug-in electric drive vehicles. Such applications may be jointly sponsored by electric utilities, automobile manufacturers, technology providers, car sharing companies or organizations, or other persons or entities.

(d) USE OF FUNDS.—Pursuant to applications received under subsection (c), the Secretary may make financial assistance available to any applicant or joint sponsor of the application to be used for any of the following:

(1) Assisting persons located in the regional deployment area, including fleet owners, in the purchase of new plug-in electric drive vehicles by offsetting in whole or in part the incremental cost of such vehicles above the cost of comparable conventionally fueled vehicles.

(2) Supporting the use of plug-in electric drive vehicles by funding projects for the deployment of any of the following:

(A) Electrical charging infrastructure for plug-in electric drive vehicles, including battery exchange, fast charging infrastructure, and other services, in public or private locations, including street parking, parking garages, parking lots, homes, gas stations, and highway rest stops.

(B) Smart Grid equipment and infrastructure, as described in title XIII of the Energy Independence and Security Act of 2007, to facilitate the charging and integration of plug-in electric drive vehicles.

(3) Such other projects as the Secretary determines appropriate to support the large-scale deployment of plug-in electric drive vehicles in regional deployment areas.

(e) PROGRAM REQUIREMENTS.—The Secretary, in consultation with the Administrator and the Secretary of Transportation, shall determine design elements and requirements of the program established pursuant to subsection (a), including—

(1) the type of financial mechanism with which to provide financial assistance;

(2) criteria for evaluating applications submitted under subsection (c), including the anticipated ability to promote deployment and market penetration of vehicles that are less dependent on petroleum as a fuel source; and

(3) reporting requirements for entities that receive financial assistance under this section, including a comprehensive set of performance data characterizing the results of the deployment program.

(f) INFORMATION CLEARINGHOUSE.—The Secretary shall, as part of the program established pursuant to subsection (a), collect and make available to the public information regarding the cost, performance, and other technical data regarding the deployment and integration of plug-in electric drive vehicles.

(g) AUTHORIZATION.—There are authorized to be appropriated to carry out this section such sums as may be necessary.

SEC. 123. PLUG-IN ELECTRIC DRIVE VEHICLE MANUFACTURING.

(a) VEHICLE MANUFACTURING ASSISTANCE PROGRAM.—The Secretary of Energy shall establish a program to provide financial assistance to automobile manufacturers to facilitate the manufacture of plug-in electric drive vehicles, as defined in section 131(a)(5) of the Energy Independence and Security Act of 2007, that are developed and produced in the United States.

(b) FINANCIAL ASSISTANCE.—The Secretary of Energy may provide financial assistance to an automobile manufacturer under the program established pursuant to subsection (a) for—

(1) the reconstruction or retooling of facilities for the manufacture of plug-in electric drive vehicles that are developed and produced in the United States; and

(2) if appropriate, the purchase of domestically produced vehicle batteries to be used in the manufacture of vehicles manufactured pursuant to paragraph (1).

(c) COORDINATION WITH REGIONAL DEPLOYMENT.—The Secretary may provide financial assistance under subsection (b) in conjunction with the award of financial assistance under the large scale vehicle electrification program established pursuant to section 122 of this Act.

(d) PROGRAM REQUIREMENTS.—The Secretary shall determine design elements and requirements of the program established pursuant to subsection (a), including—

(1) the type of financial mechanism with which to provide financial assistance;

(2) criteria, in addition to the criteria described under subsection (e), for evaluating applications for financial assistance; and

(3) reporting requirements for automobile manufacturers that receive financial assistance under this section.

(e) CRITERIA.—In selecting recipients of financial assistance from among applicant automobile manufacturers, the Secretary shall give preference to proposals that—

(1) are most likely to be successful; and

(2) are located in local markets that have the greatest need for the facility.

(f) REPORTS.—The Secretary shall annually submit to Congress a report on the program established pursuant to this section.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 124. INVESTMENT IN CLEAN VEHICLES.

(a) DEFINITIONS.—In this section:

(1) ADVANCED TECHNOLOGY VEHICLES AND QUALIFYING COMPONENTS.—The terms "advanced technology vehicles" and "qualifying components" shall have the definition of such terms in section 136 of the Energy Independence and Security Act of 2007, except that for purposes of this section, the average base year as described in such section 136(a)(1)(C) shall be the following:

(A) In each of the years 2012 through 2016, model year 2009.

(B) In 2017, the Administrator shall, notwithstanding such section 136(a)(1)(C), determine an appropriate baseline based on technological and economic feasibility.

(2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The term "plug-in electric drive vehicle" shall have the definition of such term in section 131 of the Energy Independence and Security Act of 2007.

(b) DISTRIBUTION OF ALLOWANCES.—The Administrator shall, in accordance with this section, distribute emission allowances allocated pursuant to section 782(i) of the Clean Air Act not later than September 30 of 2012 and each calendar year thereafter through 2025.

(c) PLUG-IN ELECTRIC DRIVE VEHICLE MANUFACTURING AND DEPLOYMENT.—

(1) IN GENERAL.—The Administrator shall, at the direction of the Secretary of Energy, provide emission allowances allocated pursuant to section 782(i) to applicants, joint sponsors and automobile manufacturers pursuant to sections 122 and 123 of this Act.

(2) ANNUAL AMOUNT.—In each of the years 2012 through 2017, one-quarter of the portion of the emission allowances allocated pursuant to section 782(i) of the Clean Air Act shall be available to carry out paragraph (1) such that—

(A) one-eighth of the portion shall be available to carry out section 122; and,

(B) one-eighth of the portion shall be available to carry out section 123.

(3) PREFERENCE.—In directing the provision of emission allowances under this subsection to carry out section 122, the Secretary shall give preference to applications under section 122(c) that are jointly sponsored by one or more automobile manufacturers.

(4) MULTI-YEAR COMMITMENTS.—The Administrator shall commit to providing emission allowances to an applicant, joint sponsor, or automobile manufacturer for up to five consecutive years if—

(A) an application under section 122 or 123 of this Act requests a multi-year commitment;

(B) such application meets the criteria for support established by the Secretary of Energy under sections 122 or 123 of this Act;

(C) the Administrator confirms to the Secretary that emission allowances will be available for a multi-year commitment;

(D) the Secretary of Energy determines that a multi-year commitment for such application will advance the goals of section 122 or 123; and

(E) the Secretary of Energy directs the Administrator to make a multi-year commitment.

(5) INSUFFICIENT APPLICATIONS.—If, in any year, emission allowances available under paragraph (2) cannot be provided because of insufficient numbers of submitted applications that meet the criteria for support established by the Secretary of Energy under sections 122 or 123 of this Act, the remaining emission allowances shall be distributed according to subsection (d).

(d) ADVANCED TECHNOLOGY VEHICLES.—

(1) IN GENERAL.—The Administrator shall, at the direction of the Secretary of Energy, provide any emission allowances allocated pursuant to section 782(i) of the Clean Air Act that are not provided under subsection (c) to automobile manufacturers and component suppliers to pay not more than 30 percent of the cost of—

(A) reequipping, expanding, or establishing a manufacturing facility in the United States to produce—

(i) qualifying advanced technology vehicles; or

(ii) qualifying components; and

(B) engineering integration performed in the United States of qualifying vehicles and qualifying components.

(2) PREFERENCE.—In directing the provision of emission allowances under this subsection during the years 2012 through 2017, the Secretary shall give preference to applications for projects that save the maximum number of gallons of fuel.

SEC. 125. ADVANCED TECHNOLOGY VEHICLE MANUFACTURING INCENTIVE LOANS.

Section 136(d)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(d)(1)) is amended by striking "$25,000,000,000" and inserting "$50,000,000,000".

SEC. 126. AMENDMENT TO RENEWABLE FUELS STANDARD.

(a) DEFINITION OF RENEWABLE BIOMASS.—Section 211(o)(1)(I) of the Clean Air Act (42 U.S.C. 7545(o)) is amended to read as follows:

"(I) RENEWABLE BIOMASS.—The term 'renewable biomass' means any of the following:

"(i) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 1, 2009.

"(ii) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.

"(iii) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).

"(iv) Animal waste or animal byproducts, including products of animal waste digesters.

"(v) Algae.

"(vi) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road, electric transmission line, utility tower, or water supply line.

"(vii) Residues from or byproducts of milled logs.

"(viii) Any of the following removed from forested land that is not Federal and is not high conservation priority land:

"(I) Trees, brush, slash, residues, interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established—

"(aa) prior to January 1, 2009; or

"(bb) on land that, as of January 1, 2009, was cultivated or fallow and non-forested.

"(II) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation.

"(III) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types.

"(IV) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees.

"(ix) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are—

"(I) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or mature forest stands, components of the National Landscape Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas, or Wild and Scenic Rivers corridors;

"(II) harvested in environmentally sustainable quantities, as determined by the appropriate Federal land manager; and

"(III) harvested in accordance with Federal and State law and applicable land management plans.".

(b) DEFINITION OF HIGH CONSERVATION PRIORITY LAND.—Section 211(o)(1) of the Clean Air Act (42 U.S.C. 7545(o)) is amended by inserting the following at the end thereof:

"(M) HIGH CONSERVATION PRIORITY LAND.—The term 'high conservation priority land' means land that is not Federal land and is—

"(i) globally or State ranked as critically imperiled or imperiled under a State Natural Heritage Program; or

"(ii) old-growth or late-successional forest, as identified by the office of the State Forester or relevant State agency with regulatory jurisdiction over forestry activities.".

SEC. 127. OPEN FUEL STANDARD.

(a) FINDINGS.—The Congress finds that—

(1) the status of oil as a strategic commodity, which derives from its domination of the transportation sector, presents a clear and present danger to the United States;

(2) in a prior era, when salt was a strategic commodity, salt mines conferred national power and wars were fought over the control of such mines;

(3) technology, in the form of electricity and refrigeration, decisively ended salt's monopoly of meat preservation and greatly reduced its strategic importance;

(4) fuel competition and consumer choice would similarly serve to end oil's monopoly in the transportation sector and strip oil of its strategic status;

(5) the current closed fuel market has allowed a cartel of petroleum exporting countries to inflate fuel prices, effectively imposing a harmful tax on the economy of the United States;

(6) much of the inflated petroleum revenues the oil cartel earns at the expense of the people of the United States are used for purposes antithetical to the interests of the United States and its allies;

(7) alcohol fuels, including ethanol and methanol, could potentially provide significant supplies of additional fuels that could be produced in the United States and in many other countries in the Western Hemisphere that are friendly to the United States;

(8) alcohol fuels can only play a major role in securing the energy independence of the United States if a substantial portion of vehicles in the United States are capable of operating on such fuels;

(9) it is not in the best interest of United States consumers or the United States Government to be constrained to depend solely upon petroleum resources for vehicle fuels if alcohol fuels are potentially available;

(10) existing technology, in the form of flexible fuel vehicles, allows internal combustion engine cars and trucks to be produced at little or no additional cost, which are capable of operating on conventional gasoline, alcohol fuels, or any combination of such fuels, as availability or cost advantage dictates, providing a platform on which fuels can compete;

(11) the necessary distribution system for such alcohol fuels will not be developed in the United States until a substantial fraction of the vehicles in the United States are capable of operating on such fuels;

(12) the establishment of such a vehicle fleet and distribution system would provide a large market that would mobilize private resources to substantially advance the technology and expand the production of alcohol fuels in the United States and abroad;

(13) the United States has an urgent national security interest to develop alcohol fuels technology, production, and distribution systems as rapidly as possible;

(14) new cars sold in the United States that are equipped with an internal combustion engine should allow for fuel competition by being flexible fuel vehicles, and new diesel cars should be capable of operating on biodiesel; and

(15) such an open fuel standard would help to protect the United States economy from high and volatile oil prices and from the threats caused by global instability, terrorism, and natural disaster.

(b) OPEN FUEL STANDARD FOR TRANSPORTATION.—(1) Chapter 329 of title 49, United States Code, is amended by adding at the end the following:

"§ 32920. Open fuel standard for transportation

"(a) DEFINITIONS.—In this section:

"(1) E85.—The term 'E85' means a fuel mixture containing 85 percent ethanol and 15 percent gasoline by volume.

"(2) FLEXIBLE FUEL AUTOMOBILE.—The term 'flexible fuel automobile' means an automobile that has been warranted by its manufacturer to operate on gasoline, E85, and M85.

"(3) FUEL CHOICE-ENABLING AUTOMOBILE.—The term 'fuel choice-enabling automobile' means—

"(A) a flexible fuel automobile; or

"(B) an automobile that has been warranted by its manufacturer to operate on biodiesel.

"(4) LIGHT-DUTY AUTOMOBILE.—The term 'light-duty automobile' means—

"(A) a passenger automobile; or

"(B) a non-passenger automobile.

"(5) LIGHT-DUTY AUTOMOBILE MANUFACTURER'S ANNUAL COVERED INVENTORY.—The term 'light-duty automobile manufacturer's annual covered inven-

tory' means the number of light-duty automobiles powered by an internal combustion engine that a manufacturer, during a given calendar year, manufactures in the United States or imports from outside of the United States for sale in the United States.

"(6) M85.—The term 'M85' means a fuel mixture containing 85 percent methanol and 15 percent gasoline by volume.

"(b) OPEN FUEL STANDARD FOR TRANSPORTATION.—

"(1) IN GENERAL.—The Secretary may promulgate regulations to require each light-duty automobile manufacturer's annual covered inventory to be comprised of a minimum percentage of fuel-choice enabling automobiles, with sufficient lead time, if the Secretary, in coordination with the Secretary of Energy and the Administrator of the Environmental Protection Agency, determines such requirement is a cost-effective way to achieve the Nation's energy independence and environmental objectives. The cost-effective determination shall consider the future availability of both alternative fuel supply and infrastructure to deliver the alternative fuel to the fuel-choice enabling vehicles.

"(2) TEMPORARY EXEMPTION FROM REQUIREMENTS.—

"(A) APPLICATION.—A manufacturer may request an exemption from the requirement described in paragraph (1) by submitting an application to the Secretary, at such time, in such manner, and containing such information as the Secretary may require by regulation. Each such application shall specify the models, lines, and types of automobiles affected.

"(B) EVALUATION.—After evaluating an application received from a manufacturer, the Secretary may at any time, under such terms and conditions, and to such extent as the Secretary considers appropriate, temporarily exempt, or renew the exemption of, a light-duty automobile from the requirement described in paragraph (1) if the Secretary determines that unavoidable events not under the control of the manufacturer prevent the manufacturer of such automobile from meeting its required production volume of fuel choice-enabling automobiles, including—

"(i) a disruption in the supply of any component required for compliance with the regulations;

"(ii) a disruption in the use and installation by the manufacturer of such component; or

"(iii) application to plug-in electric drive vehicles causing such vehicles to fail to meet State air quality requirements.

"(C) CONSOLIDATION.—The Secretary may consolidate applications received from multiple manufacturers under subparagraph (A) if they are of a similar nature.

"(D) CONDITIONS.—Any exemption granted under subparagraph (B) shall be conditioned upon the manufacturer's commitment to recall the exempted automobiles for installation of the omitted components within a reasonable time proposed by the manufacturer and approved by the Secretary after such components become available in sufficient quantities to satisfy both anticipated production and recall volume requirements.

"(E) NOTICE.—The Secretary shall publish in the Federal Register—

"(i) notice of each application received from a manufacturer;

"(ii) notice of each decision to grant or deny a temporary exemption; and

"(iii) the reasons for granting or denying such exemptions.".

(2) The table of contents in chapter 329 of such title is amended adding at the end the following:

"32920. Open fuel standard for transportation.".

SEC. 128. TEMPORARY VEHICLE TRADE-IN PROGRAM.

(a) ESTABLISHMENT.—There is established in the National Highway Traffic Safety Administration a program to be known as the "Cash for Clunkers Temporary Vehicle Trade-in Program" through which the Secretary, in accordance with this section and the regulations promulgated under subsection (d), shall—

(1) authorize the issuance of an electronic voucher, subject to the specifications set forth in subsection (c), to offset the purchase price or lease price for a qualifying lease of a new fuel efficient automobile upon the surrender of an eligible trade-in vehicle to a dealer participating in the Program;

(2) certify dealers for participation in the Program and require that all certified dealers—

(A) accept vouchers as provided in this section as partial payment or down payment for the purchase or qualifying lease of any new fuel efficient automobile offered for sale or lease by that dealer; and

(B) in accordance with subsection (c)(2), dispose of each eligible trade-in vehicle surrendered to the dealer under the Program;

(3) in consultation with the Secretary of the Treasury, make payments to dealers for vouchers accepted by such dealers prior to April 1, 2010, in accordance with the regulations issued under subsection (d);

(4) in consultation with the Secretary of the Treasury, provide for the payment of rebates to persons who qualify for a rebate under subsection (c)(3); and

(5) in consultation with the Secretary of the Treasury and the Inspector General of the Department of Transportation, establish and provide for the enforcement of measures to prevent and penalize fraud under the Program.

(b) QUALIFICATIONS FOR AND VALUE OF VOUCHERS.—A voucher issued under the Program shall have a value that may be applied to offset the purchase price or lease price for a qualifying lease of a new fuel efficient automobile as follows:

(1) $3,500 VALUE.—The voucher may be used to offset the purchase price or lease price of the new fuel efficient automobile by $3,500 if—

(A) the new fuel efficient automobile is a passenger automobile and the combined fuel economy value of such automobile is at least 4 miles per gallon higher than the combined fuel economy value of the eligible trade-in vehicle;

(B) the new fuel efficient automobile is a category 1 truck and the combined fuel economy value of such truck is at least 2 miles per gallon higher than the combined fuel economy value of the eligible trade-in vehicle;

(C) the new fuel efficient automobile is a category 2 truck that has a combined fuel economy value of at least 15 miles per gallon and—

(i) the eligible trade-in vehicle is a category 2 truck and the combined fuel economy value of the new fuel efficient automobile is at least 1 mile per gallon higher than the combined fuel economy value of the eligible trade-in vehicle; or

(ii) the eligible trade-in vehicle is a category 3 truck of model year 2001 or earlier; or

(D) the new fuel efficient automobile is a category 3 truck and the eligible trade-in vehicle is a category 3 truck of model year of 2001 or earlier and is of similar size or larger than the new fuel efficient automobile as determined in a manner prescribed by the Secretary.

(2) $4,500 VALUE.—The voucher may be used to offset the purchase price or lease price of the new fuel efficient automobile by $4,500 if—

(A) the new fuel efficient automobile is a passenger automobile and the combined fuel economy value of such automobile is at least 10 miles per gallon higher than the combined fuel economy value of the eligible trade-in vehicle;

(B) the new fuel efficient automobile is a category 1 truck and the combined fuel economy value of such truck is at least 5 miles per gallon higher than the combined fuel economy value of the eligible trade-in vehicle; or

(C) the new fuel efficient automobile is a category 2 truck that has a combined fuel economy value of at least 15 miles per gallon and the combined fuel economy value of such truck is at least 2 miles per gallon higher than the combined fuel economy value of the eligible trade-in vehicle and the eligible trade-in vehicle is a category 2 truck.

(c) PROGRAM SPECIFICATIONS.—

(1) LIMITATIONS.—

(A) GENERAL PERIOD OF ELIGIBILITY.—A voucher issued under the Program shall be used only for the purchase or qualifying lease of new fuel efficient automobiles that occur between March 30, 2009, and March 31, 2010.

(B) NUMBER OF VOUCHERS PER PERSON AND PER TRADE-IN VEHICLE.—Not more than 1 voucher may be issued for a single person and not more than 1 voucher may be issued for the joint registered owners of a single eligible trade-in vehicle.

(C) NO COMBINATION OF VOUCHERS.—Only 1 voucher issued under the Program may be applied toward the purchase or qualifying lease of a single new fuel efficient automobile.

(D) CAP ON FUNDS FOR CATEGORY 3 TRUCKS.—Not more than 7.5 percent of the total funds made available for the Program shall be used for vouchers for the purchase or qualifying lease of category 3 trucks.

(E) COMBINATION WITH OTHER INCENTIVES PERMITTED.—The availability or use of a Federal, State, or local incentive or a State-issued voucher for the purchase or lease of a new fuel efficient automobile shall not limit the value or issuance of a voucher under the Program to any person otherwise eligible to receive such a voucher.

(F) NO ADDITIONAL FEES.—A dealer participating in the program may not charge a person purchasing or leasing a new fuel efficient automobile any additional fees associated with the use of a voucher under the Program.

(G) NUMBER AND AMOUNT.—The total number and value of vouchers issued under the Program may not exceed the amounts appropriated for such purpose.

(2) DISPOSITION OF ELIGIBLE TRADE-IN VEHICLES.—

(A) IN GENERAL.—For each eligible trade-in vehicle, the title of which is transferred to a dealer under the Program, the dealer shall certify to the Secretary, in such manner as the Secretary shall prescribe by rule, that the vehicle, including the engine and drive train—

(i) will be crushed or shredded within such period and in such manner as the Secretary prescribes, or will be transferred to an entity that will ensure that the vehicle will be crushed or shredded within such period and in such manner as the Secretary prescribes; and

(ii) has not been, and will not be, sold, leased, exchanged, or otherwise disposed of for use as an automobile in the United States or in any other country, or has been or will be transferred, in such manner as the Secretary prescribes, to an entity that will ensure that the vehicle has not been, and will not be, sold, leased, exchanged, or otherwise disposed of for use as an automobile in the United States or in any other country.

(B) SAVINGS PROVISION.—Nothing in subparagraph (A) may be construed to preclude a person who dismantles or disposes of the vehicle from—

(i) selling any parts of the disposed vehicle other than the engine block and drive train (unless the engine or drive train has been crushed or shredded); or

(ii) retaining the proceeds from such sale.

(C) COORDINATION.—The Secretary shall coordinate with the Attorney General to ensure that the National Motor Vehicle Title Information System and other publicly accessible and commercially available systems are appropriately updated to reflect the crushing or shredding of vehicles under this section and appropriate re-classification of the vehicles' titles.

(3) ELIGIBLE PURCHASES OR LEASES PRIOR TO DATE OF ENACTMENT.—A person who purchased or leased a new fuel efficient vehicle after March 30, 2009, and before the date of enactment of this section is eligible for a cash rebate equivalent to the amount described in subsection (b)(1) if the person provides proof satisfactory to the Secretary that—

(A) the person was the registered owner of an eligible trade-in vehicle; and

(B) such vehicle has been disposed of in accordance with clauses (i) and (ii) of paragraph (2)(A).

(d) REGULATIONS.—Notwithstanding the requirements of section 553 of title 5, United States Code, the Secretary shall promulgate final regulations to implement the Program not later than 30 days after the date of the enactment of this section. Such regulations shall—

(1) provide for a means of certifying dealers for participation in the program;

(2) establish procedures for the reimbursement of dealers participating in the Program to be made through electronic transfer of funds for both the amount of the vouchers and any reasonable administrative costs incurred by the dealer as soon as practicable but no longer than 10 days after the submission of a voucher for the new fuel efficient automobile to the Secretary;

(3) prohibit a dealer from using the voucher to offset any other rebate or discount offered by that dealer or the manufacturer of the new fuel efficient automobile;

(4) require dealers to disclose to the person trading in an eligible trade in vehicle the best estimate of the scrappage value of such vehicle and to permit the dealer to retain $50 of any amounts paid to the dealer for scrappage of the automobile as payment for any administrative costs to the dealer associated with participation in the Program;

(5) establish a process by which persons who qualify for a rebate under subsection (c)(3) may apply for such rebate;

(6) consistent with subsection (c)(2), establish requirements and procedures for the disposal of eligible trade-in vehicles and provide such information as may be necessary to entities engaged in such disposal to ensure that such vehicles are disposed of in accordance with such requirements and procedures, including—

(A) requirements for the removal and appropriate disposition of refrigerants, antifreeze, lead products, mercury switches, and such other toxic or

hazardous vehicle components prior to the crushing or shredding of an eligible trade-in vehicle, in accordance with rules established by the Secretary in consultation with the Administrator, and in accordance with other applicable Federal or State requirements; and

(B) a mechanism for dealers to certify to the Secretary that eligible trade-in vehicles are disposed of, or transferred to an entity that will ensure that the vehicle is disposed of, in accordance with such requirements and procedures and to submit the vehicle identification numbers of the vehicles disposed of and the new fuel efficient automobile purchased with each voucher;

(7) consistent with subsection (c)(2), establish requirements and procedures for the disposal of eligible trade-in vehicles and provide such information as may be necessary to entities engaged in such disposal to ensure that such vehicles are disposed of in accordance with such requirements and procedures; and

(8) provide for the enforcement of the penalties described in subsection (e).

(e) ANTI-FRAUD PROVISIONS.—

(1) VIOLATION.—It shall be unlawful for any person to violate any provision under this section or any regulations issued pursuant to subsection (d).

(2) PENALTIES.—Any person who commits a violation described in paragraph (1) shall be liable to the United States Government for a civil penalty of not more than $25,000 for each violation.

(f) INFORMATION TO CONSUMERS AND DEALERS.—Not later than 30 days after the date of enactment of this section, and promptly upon the update of any relevant information, the Secretary shall make available on an Internet website and through other means determined by the Secretary information about the Program, including—

(1) how to determine if a vehicle is an eligible trade-in vehicle;

(2) how to participate in the Program, including how to determine participating dealers; and

(3) a comprehensive list, by make and model, of new fuel efficient automobiles meeting the requirements of the Program.

Once such information is available, the Secretary shall conduct a public awareness campaign to inform consumers about the Program and where to obtain additional information.

(g) RECORDKEEPING AND REPORT.—

(1) DATABASE.—The Secretary shall maintain a database of the vehicle identification numbers of all new fuel efficient vehicles purchased or leased and all eligible trade-in vehicles disposed of under the Program.

(2) REPORT.—Not later than June 30, 2010, the Secretary shall submit a report to the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate describing the efficacy of the Program, including—

(A) a description of program results, including—

(i) the total number and amount of vouchers issued for purchase or lease of new fuel efficient automobiles by manufacturer (including aggregate information concerning the make, model, model year) and category of automobile;

(ii) aggregate information regarding the make, model, model year, and manufacturing location of vehicles traded in under the Program; and

(iii) the location of sale or lease;

(B) an estimate of the overall increase in fuel efficiency in terms of miles per gallon, total annual oil savings, and total annual greenhouse gas reductions, as a result of the Program; and

(C) an estimate of the overall economic and employment effects of the Program.

(h) DEFINITIONS.—As used in this section—

(1) the term "passenger automobile" means a passenger automobile, as defined in section 32901(a)(18) of title 49, United States Code, that has a combined fuel economy value of at least 22 miles per gallon;

(2) the term "category 1 truck" means a nonpassenger automobile, as defined in section 32901(a)(17) of title 49, United States Code, that has a combined fuel economy value of at least 18 miles per gallon, except that such term does not include a category 2 truck;

(3) the term "category 2 truck" means a large van or a large pickup, as categorized by the Secretary using the method used by the Environmental Protection Agency and described in the report entitled "Light-Duty Automotive Technology and Fuel Economy Trends: 1975 through 2008";

(4) the term "category 3 truck" means a work truck, as defined in section 32901(a)(19) of title 49, United States Code;

(5) the term "combined fuel economy value" means—

(A) with respect to a new fuel efficient automobile, the number, expressed in miles per gallon, centered below the words "Combined Fuel Economy" on the label required to be affixed or caused to be affixed on a new automobile pursuant to subpart D of part 600 of title 40 Code of Federal Regulations;

(B) with respect to an eligible trade-in vehicle, the equivalent of the number described in subparagraph (A), and posted under the words "Estimated New EPA MPG" and above the word "Combined" for vehicles of model year 1984 through 2007, or posted under the words "New EPA MPG" and above the word "Combined" for vehicles of model year 2008 or later on the fueleconomy.gov website of the Environmental Protection Agency for the make, model, and year of such vehicle; or

(C) with respect to an eligible trade-in vehicle manufactured between model years 1978 through 1984, the equivalent of the number described in subparagraph (A) as determined by the Secretary (and posted on the website of the National Highway Traffic Safety Administration) using data maintained by the Environmental Protection Agency for the make, model, and year of such vehicle;

(6) the term "dealer" means a person licensed by a State who engages in the sale of new automobiles to ultimate purchasers;

(7) the term "eligible trade-in vehicle" means an automobile or a work truck (as such terms are defined in section 32901(a) of title 49, United States Code) that, at the time it is presented for trade-in under this section—

(A) is in drivable condition;

(B) has been continuously insured consistent with the applicable State law and registered to the same owner for a period of not less than 1 year immediately prior to such trade-in; and

(C) has a combined fuel economy value of 18 miles per gallon or less;

(8) the term "new fuel efficient automobile" means an automobile described in paragraph (1), (2), (3), or (4)—

(A) the equitable or legal title of which has not been transferred to any person other than the ultimate purchaser;

(B) that carries a manufacturer's suggested retail price of $45,000 or less;

(C) that—

(i) for new fuel efficient automobiles weighing up to 8,500 pounds, is certified to applicable standards under section 86.1811-04 of title 40, Code of Federal Regulations; or

(ii) for category 3 trucks, is certified to the applicable vehicle or engine standards under section 86.1816-08, 86-007-11, or 86.008-10 of title 40, Code of Federal Regulations; and

(D) that has the combined fuel economy value of—

(i) 22 miles per gallon for a passenger automobile;

(ii) 18 miles per gallon for a category 1 truck; and

(iii) 15 miles per gallon for a category 2 truck;

(9) the term "Program" means the Cash for Clunkers Temporary Vehicle Trade-in Program established by this section;

(10) the term "qualifying lease" means a lease of an automobile for a period of not less than 5 years;

(11) the term "scrappage value" means the amount received by the dealer for a vehicle upon transferring title of such vehicle to the person responsible for ensuring the dismantling and destroying the vehicle;

(12) the term "Secretary" means the Secretary of Transportation acting through the National Highway Traffic Safety Administration;

(13) the term "ultimate purchaser" means, with respect to any new automobile, the first person who in good faith purchases such automobile for purposes other than resale; and

(14) the term "vehicle identification number" means the 17 character number used by the automobile industry to identify individual automobiles.

(i) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary $4,000,000,000 to carry out this section.

SEC. 129. DIESEL EMISSIONS REDUCTION.

Subtitle G of title VII of the Energy Policy Act of 2005 (42 U.S.C. 16131 et seq.) is amended—

(1) in the matter preceding clause (i) in section 791(3)(B), by inserting "in any State" after "nonprofit organization or institution";

(2) in section 791(9), by striking "The term 'State' includes the District of Columbia." and inserting "The term 'State' includes the District of Columbia,

American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, Puerto Rico, and the Virgin Islands."; and

(3) in section 793(c)—

(A) in paragraph (2)(A), by striking "51 States" and inserting "56 States";

(B) in paragraph (2)(A), by striking "1.96 percent" and inserting "1.785 percent";

(C) in paragraph (2)(B), by striking "51 States" and inserting "56 States"; and

(D) in paragraph (2)(B), by amending clause (ii) to read as follows:

"(ii) the amount of funds remaining after each State described in paragraph (1) receives the 1.785-percent allocation under this paragraph.".

SEC. 130. LOAN GUARANTEES FOR PROJECTS TO CONSTRUCT RENEWABLE FUEL PIPELINES.

(a) DEFINITIONS.—Section 1701 of the Energy Policy Act of 2005 (42 U.S.C. 16511) is amended by adding at the end the following:

"(6) RENEWABLE FUEL.—The term 'renewable fuel' has the meaning given the term in section 211(o)(1) of the Clean Air Act (42 U.S.C. 7545(o)(1)), except that the term shall include all ethanol and biodiesel.

"(7) RENEWABLE FUEL PIPELINE.—The term 'renewable fuel pipeline' means a common carrier pipeline for transporting renewable fuel.".

(b) RENEWABLE FUEL PIPELINE ELIGIBILITY.—Section 1703(b) the Energy Policy Act of 2005 (42 U.S.C. 16513) is amended by adding at the end the following:

"(11) Renewable fuel pipelines.".

Subtitle D—State Energy and Environment Development Accounts

SEC. 131. ESTABLISHMENT OF SEED ACCOUNTS.

(a) DEFINITIONS.—In this section:

(1) SEED ACCOUNT.—The term "SEED Account" means a State Energy and Environment Development Account established pursuant to this section.

(2) STATE ENERGY OFFICE.—The term "State Energy Office" means a State entity eligible for grants under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.).

(b) ESTABLISHMENT OF PROGRAM.—The Administrator shall establish a program under which a State, through its State Energy Office or other State agency designated by the State, may operate a State Energy and Environment Development Account.

(c) PURPOSE.—The purpose of each SEED Account is to serve as a common State-level repository for managing and accounting for emission allowances provided to States designated for renewable energy and energy efficiency purposes.

(d) REGULATIONS.—Not later than one year after the date of enactment of this Act, the Administrator shall promulgate regulations to carry out this section, including regulations—

(1) to ensure that each State operates its SEED Account and any subaccounts thereof efficiently and in accordance with this Act and applicable State and Federal laws;

(2) to prevent waste, fraud, and abuse;

(3) to indicate the emission allowances that may be deposited in a State's SEED Account pending distribution or use;

(4) to indicate the programs and objectives authorized by Federal law for which emission allowances in a SEED Account may be distributed or used;

(5) to identify the forms of financial assistance and incentives that States may provide through distribution or use of SEED Accounts; and

(6) to prescribe the form and content of reports that the States are required to submit under this section on the use of SEED Accounts.

(e) OPERATION.—

(1) DEPOSITS.—

(A) IN GENERAL.—In the allowance tracking system established pursuant to section 724(d) of the Clean Air Act, the Administrator shall establish a SEED Account for each State and place in it the allowances allocated pursuant to section 782(g) of the Clean Air Act to be distributed to States pursuant to sections 132 and 201 of this Act.

(B) FINANCIAL ACCOUNT.—A State may create a financial account associated with its SEED Account to deposit, retain, and manage any proceeds of any sale of any allowance provided pursuant to this Act pending expendi-

ture or disbursement of those proceeds for purposes permitted under this section. The funds in such an account shall not be commingled with other funds not derived from the sale of allowances provided to the State; however, loans made by the State from such funds pursuant to paragraph (2)(C)(i) may be repaid into such a financial account, including any interest charged.

(2) WITHDRAWALS.—

(A) IN GENERAL.—All allowances distributed pursuant to sections 132 and 201, including the proceeds of any sale of such allowances, shall support renewable energy and energy efficiency programs authorized or approved by the Federal Government.

(B) DEDICATED ALLOWANCES.—Allowances distributed pursuant to sections 132 and 201 that are required by law to be used for specific purposes for a specified period shall be used according to those requirements during that period.

(C) UNDEDICATED ALLOWANCES.—To the extent that allowances distributed pursuant to sections 132 and 201 are not required by law to be used for specific purposes for a specified period as described in subparagraph (B), such allowances or the proceeds of their sale may be used for any of the following purposes:

(i) LOANS.—Loans of allowances, or the proceeds from the sale of allowances, may be provided, interest on commercial loans may be subsidized at an interest rate as low as zero, and other credit support may be provided to support programs authorized to use SEED Account allowance value or any other renewable energy or energy efficiency purpose authorized or approved by the Federal Government.

(ii) GRANTS.—Grants of allowances or the proceeds of their sale may be provided to support programs authorized to use SEED Account allowance value or any other renewable energy or energy efficiency purpose authorized or approved by the Federal Government.

(iii) OTHER FORMS OF SUPPORT.—Allowances or the proceeds of the sale of allowances may be provided for other forms of support for programs authorized to use SEED Account allowance value or any other renewable energy or energy efficiency purpose authorized or approved by the Federal Government.

(iv) ADMINISTRATIVE COSTS.—Except to the extent provided in Federal law authorizing or allocating allowances deposited in a SEED Account, not more than 5 percent of the allowance value in a SEED Account in any year may be used to cover administrative expenses of the SEED Account.

(D) SUBACCOUNTS.—A State may request that the Administrator establish accounts for local governments that request such subaccounts to hold allowances distributed to local governments for renewable energy or energy efficiency programs authorized or approved by the Federal Government.

(E) INTENDED USE PLANS.—

(i) IN GENERAL.—After providing for public review and comment, each State administering a SEED Account shall annually prepare a plan that identifies the intended uses of the allowances or proceeds from the sale of allowances in its SEED Account.

(ii) CONTENTS.—An intended use plan shall include—

(I) a list of the projects or programs for which withdrawals from the SEED Account are intended in the next fiscal year that begins after the date of the plan, including a description of each project;

(II) the relationship of each of the projects or programs to an identified Federal purpose authorized by this Act, or any other Federal statute;

(III) the expected terms of use of allowance value to provide assistance;

(IV) the criteria and methods established for the distribution of allowances or allowance value;

(V) a description of the equivalent financial value and status of the SEED Account; and

(VI) a statement of the mid-term and long-term goals of the State for use of its SEED Account.

(3) ACCOUNTABILITY AND TRANSPARENCY.—

(A) CONTROLS AND PROCEDURES.—Any State that has a SEED Account shall establish fiscal controls and recordkeeping and accounting procedures for the SEED Account sufficient to ensure proper accounting during appropriate accounting periods for distributions into the SEED Account, transfers

from the SEED Account, and SEED Account balances, including any related financial accounts. Such controls and procedures shall conform to generally accepted government accounting principles. Any State that has a SEED Account shall retain records for a period of at least 5 years.

(B) AUDITS.—Any State that has a SEED Account shall have an annual audit conducted of the SEED Account by an independent public accountant in accordance with generally accepted auditing standards, and shall transmit the results of that audit to the Administrator.

(C) STATE REPORT.—Each State administering a SEED Account shall make publicly available and submit to the Administrator a report every 2 years on its activities related to its SEED Account.

(D) PUBLIC INFORMATION.—Any—

(i) controls and procedures established under subparagraph (A); and

(ii) information obtained through audits conducted under subparagraph (B), except to the extent that it would be protected from disclosure, if it were information held by the Federal Government, under section 552(b) of title 5, United States Code,

shall be made publicly available.

(E) OTHER PROTECTIONS.—The Administrator shall require such additional procedures and protections as are necessary to ensure that any State that has a SEED Account will operate the SEED Account in an accountable and transparent manner.

(f) REQUIREMENTS FOR ELIGIBILITY.—A State's eligibility to receive allowances in its SEED Account shall depend on that State's compliance with the requirements of this Act (and the amendments made by this Act).

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator such sums as may be necessary for SEED Account operations.

SEC. 132. SUPPORT OF STATE RENEWABLE ENERGY AND ENERGY EFFICIENCY PROGRAMS.

(a) DEFINITIONS.—For purposes of this section:

(1) COST-EFFECTIVE.—The term "cost-effective", with respect to an energy efficiency program, means that the program meets the Total Resource Cost Test, which requires that the net present value of economic benefits over the life of the program or measure, including avoided supply and delivery costs and deferred or avoided investments, is greater than the net present value of the economic costs over the life of the program, including program costs and incremental costs borne by the energy consumer.

(2) RENEWABLE ENERGY RESOURCE.—The term "renewable energy resource" shall have the meaning given that term in section 610 of the Public Utility Regulatory Policies Act of 1978 (as added by section 101 of this Act).

(b) DISTRIBUTION AMONG STATES.—For each vintage year from 2012 through 2050, the Administrator shall, in accordance with this section, distribute emission allowances allocated pursuant to section 782(g)(1) of the Clean Air Act not later than September 30 of the year preceding the vintage year. The Administrator shall distribute the emission allowances to States for renewable energy and energy efficiency programs to be deposited in and administered through the State Energy and Environment Development (SEED) Accounts established pursuant to section 131. The Administrator shall distribute allowances among the States under this section each year in accordance with the following formula:

(1) One third of the allowances shall be divided equally among the States.

(2) One third of the allowances shall be distributed ratably among the States based on the population of each State, as contained in the most recent reliable census data available from the Bureau of the Census, Department of Commerce, for all States at the time the Administrator calculates the formula for distribution.

(3) One third of the allowances for shall be distributed ratably among the States on the basis of the energy consumption of each State as contained in the most recent State Energy Data Report available from the Energy Information Administration (or such alternative reliable source as the Administrator may designate).

(c) USES.—The allowances distributed to each State pursuant to this section shall be used exclusively for the purposes listed in this subsection, as set forth below:

(1) Not less than 12.5 percent shall be distributed by the State to units of local government within such State to be used exclusively to support the energy efficiency and renewable energy purposes listed in paragraphs (2), (3), and (4).

(2) Not less than 15 percent shall be used exclusively for the following energy efficiency purposes:

(A) Implementation and enforcement of building codes adopted in compliance with section 201.

(B) Implementation of the energy efficient manufactured homes program established pursuant to section 203.

(C) Implementation of the building energy performance labeling program established pursuant to section 204.

(D) Enabling the development of a Smart Grid (as described in section 1301 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17381)) for State, local government, and other public buildings and facilities, including integration of renewable energy resources and distributed generation, demand response, demand side management, and systems analysis.

(E) Transportation planning pursuant to section 841 of the Clean Air Act.

(F) Low-income community energy efficiency programs that are consistent with the grant program established under section 264 of this Act.

(G) Other cost-effective energy efficiency programs for end-use consumers of electricity, natural gas, home heating oil, or propane, including, where appropriate, programs or mechanisms administered by local governments and entities other than the State.

(3) Not less than 5 percent shall be used exclusively for implementation of the Retrofit for Energy and Environmental Performance (REEP) program established pursuant to section 202.

(4) Not less than 20 percent shall be used exclusively for capital grants, tax credits, production incentives, loans, loan guarantees, forgivable loans, and interest rate buy-downs for—

(A) re-equipping, expanding, or establishing a manufacturing facility that receives certification from the Secretary of Energy pursuant to section 1302 of the American Recovery and Reinvestment Act of 2009 for the production of—

(i) property designed to be used to produce energy from renewable energy sources; and

(ii) electricity storage systems;

(B) deployment of technologies to generate electricity from renewable energy sources; and

(C) deployment of facilities or equipment, such as solar panels, to generate electricity or thermal energy from renewable energy resources in and on buildings in an urban environment.

(5) The remaining 47.5 percent shall be used exclusively for any of the purposes described in subparagraphs (A) through (F) of paragraph (2) and in paragraphs (3) and (4), provided that each State receiving emission allowances under this section shall use not less than 1 percent of such allowances for the purpose described in paragraph (2)(F).

(d) REPORTING.—Each State receiving emission allowances under this section shall include in its biennial reports required under section 131, in accordance with such requirements as the Administrator may prescribe—

(1) a list of entities receiving allowances or allowance value under this section;

(2) the amount and nature of allowances or allowance value received by each recipient;

(3) the specific purposes for which such allowances or allowance value was conveyed;

(4) the amount of energy savings, emission reductions, renewable energy deployment, or new or retooled manufacturing capacity resulting from such allowances or allowance value; and

(5) an assessment of the cost-effectiveness of any energy efficiency program supported under subsection (c)(2)(F).

(e) ENFORCEMENT.—If the Administrator determines that a State is not in compliance with this section, the Administrator may withhold up to twice the number of allowances that the State failed to use in accordance with the requirements of this section, that such State would otherwise be eligible to receive under this section in later years. Allowances withheld pursuant to this subsection shall be distributed among the remaining States in accordance with the requirements of subsection (b).

Subtitle E—Smart Grid Advancement

SEC. 141. DEFINITIONS.

For purposes of this subtitle:

(1) The term "applicable baseline" means the average of the highest three annual peak demands a load-serving entity has experienced during the 5 years immediately prior to the date of enactment of this Act.

(2) The term "Commission" means Federal Energy Regulatory Commission.

(3) The term "load-serving entity" means an entity that provides electricity directly to retail consumers with the responsibility to assure power quality and reliability, including such entities that are investor-owned, publicly owned, owned by rural electric cooperatives, or other entities.

(4) The term "peak demand" means the highest point of electricity demand, net of any distributed electricity generation or storage from sources on the load-serving entity's customers' premises, during any hour on the system of a load serving entity during a calendar year, expressed in Megawatts (MW), or more than one such high point as a function of seasonal demand changes.

(5) The term "peak demand reduction" means the reduction in annual peak demand as compared to a previous baseline year or period, expressed in Megawatts (MW), whether accomplished by diminishing the end-use requirements for electricity or by use of locally stored or generated electricity to meet those requirements from distributed resources on the load-serving entity's customers' premises and without use of high-voltage transmission.

(6) The term "peak demand reduction plan" means a plan developed by or for a load-serving entity that it will implement to meet its peak demand reduction goals.

(7) The term "peak period" means the time period on the system of a load-serving entity relative to peak demand that may warrant special measures or electricity resources to maintain system reliability while meeting peak demand.

(8) The term "Secretary" means the Secretary of Energy.

(9) The term "Smart Grid" has the meaning provided by section 1301 of the Energy Independence and Security Act of 2007 (15 U.S.C. 17381).

SEC. 142. ASSESSMENT OF SMART GRID COST EFFECTIVENESS IN PRODUCTS.

(a) ASSESSMENT.—Within one year after the date of enactment of this Act, the Secretary and the Administrator shall each assess the potential for cost-effective integration of Smart Grid technologies and capabilities in all products that are reviewed by the Department of Energy and the Environmental Protection Agency, respectively, for potential designation as Energy Star products.

(b) ANALYSIS.—(1) Within 2 years after the date of enactment of this Act, the Secretary and the Administrator shall each prepare an analysis of the potential energy savings, greenhouse gas emission reductions, and electricity cost savings that could accrue for each of the products identified by the assessment in subsection (a) in the following optimal circumstances:

(A) The products possessed Smart Grid capability and interoperability that is tested and proven reliable.

(B) The products were utilized in an electricity utility service area which had Smart Grid capability and offered customers rate or program incentives to use the products.

(C) The utility's rates reflected national average costs, including average peak and valley seasonal and daily electricity costs.

(D) Consumers using such products took full advantage of such capability.

(E) The utility avoided incremental investments and rate increases related to such savings.

(2) The analysis under paragraph (1) shall be considered the "best case" Smart Grid analysis. On the basis of such an analysis for each product, the Secretary and the Administrator shall determine whether the installation of Smart Grid capability for such a product would be cost effective. For purposes of this paragraph, the term "cost effective" means that the cumulative savings from using the product under the best case Smart Grid circumstances for a period of one-half of the product's expected useful life will be greater than the incremental cost of the Smart Grid features included in the product.

(3) To the extent that including Smart Grid capability in any products analyzed under paragraph (2) is found to be cost effective in the best case, the Secretary and the Administrator shall, not later than 3 years after the date of enactment of this Act take each of the following actions:

(A) Inform the manufacturer of such product of such finding of cost effectiveness.

(B) Assess the potential contributions the development and use of products with Smart Grid technologies bring to reducing peak demand and promoting grid stability.

(C) Assess the potential national energy savings and electricity cost savings that could be realized if Smart Grid potential were installed in the relevant products reviewed by the Energy Star program.

(D) Assess and identify options for providing consumers information on products with Smart Grid capabilities, including the necessary conditions for cost-effective savings.

(E) Submit a report to Congress summarizing the results of the assessment for each class of products, and presenting the potential energy and greenhouse gas savings that could result if Smart Grid capability were installed and utilized on such products.

SEC. 143. INCLUSIONS OF SMART GRID CAPABILITY ON APPLIANCE ENERGY GUIDE LABELS.

Section 324(a)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended by adding the following at the end:

"(J)(i) Not later than 3 years after the date of enactment of this subparagraph, the Federal Trade Commission shall initiate a rulemaking to consider making a special note in a prominent manner on any ENERGY GUIDE label for any product actually including Smart Grid capability that—

"(I) Smart Grid capability is a feature of that product;

"(II) the use and value of that feature depended on the Smart Grid capability of the utility system in which the product was installed and the active utilization of that feature by the customer; and

"(III) on a utility system with Smart Grid capability, the use of the product's Smart Grid capability could reduce the customer's cost of the product's annual operation by an estimated dollar amount range representing the result of incremental energy and electricity cost savings that would result from the customer taking full advantage of such Smart Grid capability.

"(ii) Not later than 3 years after the date of enactment of this subparagraph, the Commission shall complete the rulemaking initiated under clause (i).".

SEC. 144. SMART GRID PEAK DEMAND REDUCTION GOALS.

(a) GOALS.—Not later than one year after the date of enactment of this Act, load-serving entities, or, at their option, States with respect to load-serving entities that they regulate, shall determine and publish peak demand reduction goals for any load-serving entities that have an applicable baseline in excess of 250 megawatts.

(b) BASELINES.—(1) The Commission, in consultation with the Secretary and the Administrator, shall develop and publish, after an opportunity for public comment, a methodology to provide for adjustments or normalization to a load-serving entity's applicable baseline over time to reflect changes in the number of customers served, weather conditions, general economic conditions, and any other appropriate factors external to peak demand management, as determined by the Commission.

(2) The Commission shall support load-serving entities (including any load-serving entities with an applicable baseline of less than 250 megawatts that volunteer to participate in achieving the purposes of this section) in determining their applicable baselines, and in developing their peak demand reduction goals.

(3) The Secretary, in consultation with the Commission, the Administrator, and the North American Electric Reliability Corporation, shall develop a system and rules for measurement and verification of demand reductions.

(c) PEAK DEMAND REDUCTION GOALS.—(1) Peak demand reduction goals may be established for an individual load-serving entity, or, at the determination of a State or regional entity, by that State or regional entity for a larger region that shares a common system peak demand and for which peak demand reduction measures would offer regional benefit.

(2) A State or regional entity establishing peak demand reduction goals shall cooperate, as necessary and appropriate, with the Commission, the Secretary, State regulatory commissions, State energy offices, the North American Electric Reliability Corporation, and other relevant authorities.

(3) In determining the applicable peak demand reduction goals, States and other jurisdictional entities may utilize the results of the 2009 National Demand Response Potential Assessment, as authorized by section 571 of the National Energy Conservation Policy Act (42 U.S.C. 8279).

(4) The applicable peak demand reduction goals shall provide that—

(A) load-serving entities will reduce or mitigate peak demand by a minimum percentage amount from the applicable baseline to a lower peak demand during calendar year 2012;

(B) load-serving entities will reduce or mitigate peak demand by a minimum percentage greater amount from the applicable baseline to a lower peak demand during calendar year 2015; and

(C) the minimum percentage reductions established as peak demand reduction goals shall be the maximum reductions that are realistically achievable

with an aggressive effort to deploy Smart Grid and peak demand reduction technologies and methods, including but not limited to those listed in subsection (d).

(d) PLAN.—Each load-serving entity shall prepare a peak demand reduction plan that demonstrates its ability to meet each applicable goal by any or a combination of the following options:

(1) Direct reduction in megawatts of peak demand through energy efficiency measures (including efficient transmission wire technologies which significantly reduce line loss compared to traditional wire technology) with reliable and continued application during peak demand periods.

(2) Demonstration that an amount of megawatts equal to a stated portion of the applicable goal is contractually committed to be available for peak reduction through one or more of the following:

(A) Megawatts enrolled in demand response programs.

(B) Megawatts subject to the ability of a load-serving entity to call on demand response programs, smart appliances, smart electricity storage devices, distributed generation resources on the entity's customers' premises, or other measures directly capable of actively, controllably, reliably, and dynamically reducing peak demand ("dynamic peak management control").

(C) Megawatts available from distributed dynamic electricity storage under agreement with the owner of that storage.

(D) Megawatts committed from dispatchable distributed generation demonstrated to be reliable under peak period conditions and in compliance with air quality regulations.

(E) Megawatts available from smart appliances and equipment with Smart Grid capability available for direct control by the utility through agreement with the customer owning the appliances or equipment.

(F) Megawatts from a demonstrated and assured minimum of distributed solar electric generation capacity in instances where peak period and peak demand conditions are directly related to solar radiation and accompanying heat.

(3) If any of the methods listed in subparagraph (C), (D), or (E) of paragraph (2) are relied upon to meet its peak demand reduction goals, the load-serving entity must demonstrate this capability by operating a test during the applicable calendar year.

(4) Nothing in this section shall require the publication in peak demand reduction goals or in any peak demand reduction plan of any information that is confidential for competitive or other reasons or that identifies individual customers.

(e) EXISTING AUTHORITY AND REQUIREMENTS.—Nothing in this section diminishes or supersedes any authority of a State or political subdivision of a State to adopt or enforce any law or regulation respecting peak demand management, demand response, distributed storage, use of distributed generation, or the regulation of load-serving entities. The Commission, in consultation with States having such peak management, demand response and distributed storage programs, shall to the maximum extent practicable, facilitate coordination between the Federal program and such State programs.

(f) RELIEF.—The Commission may, for good cause, grant relief to load-serving entities from the requirements of this section.

(g) OTHER LAWS.—Except as provided in subsections (e) and (f), no law or regulation shall relieve any person of any requirement otherwise applicable under this section.

(h) COMPLIANCE.—(1) The Commission shall within one year after the date of enactment of this Act establish a public website where the Commission will provide information and data demonstrating compliance by States, regional entities, and load-serving entities with this section, including the success of load-serving entities in meeting applicable peak demand reduction goals.

(2) The Commission shall, by April 1 of each year beginning in 2012, provide a report to Congress on compliance with this section and success in meeting applicable peak demand reduction goals and, as appropriate, shall make recommendations as to how to increase peak demand reduction efforts.

(3) The Commission shall note in each such report any State, political subdivision of a State, or load-serving entity that has failed to comply with this section, or is not a part of any region or group of load-serving entities serving a region that has complied with this section.

(4) The Commission shall have and exercise the authority to take reasonable steps to modify the process of establishing peak demand reduction goals and to accept adjustments to them as appropriate when sought by load-serving entities.

(i) ASSISTANCE TO STATES AND FUNDING.—

(1) ASSISTANCE TO STATES.—Any costs incurred by States for activities undertaken pursuant to this section shall be supported by the use of emission allowances allocated to the States' SEED Accounts pursuant to section 132 of this Act. To the extent that a State provides allowances to local governments within the State to implement this program, that shall be deemed a distribution of such allowances to units of local government pursuant to subsection (c)(1) of that section.

(2) FUNDING.—There are authorized to be appropriated such sums as may be necessary to the Commission, the Secretary, and the Administrator to carry out the provisions of this section.

SEC. 145. REAUTHORIZATION OF ENERGY EFFICIENCY PUBLIC INFORMATION PROGRAM TO INCLUDE SMART GRID INFORMATION.

(a) IN GENERAL.—Section 134 of the Energy Policy Act of 2005 (42 U.S.C. 15832) is amended as follows:

(1) By amending the section heading to read as follows: "**ENERGY EFFICIENCY AND SMART GRID PUBLIC INFORMATION INITIATIVE**".

(2) In paragraph (1) of subsection (a) by striking "reduce energy consumption during the 4-year period beginning on the date of enactment of this Act" and inserting "increase energy efficiency and to adopt Smart Grid technology and practices".

(3) In paragraph (2) of subsection (a) by striking "benefits to consumers of reducing" and inserting "economic and environmental benefits to consumers and the United States of optimizing".

(4) In subsection (a) by inserting at the beginning of paragraph (3) "the effect of energy efficiency and Smart Grid capability in reducing energy and electricity prices throughout the economy, together with".

(5) In subsection (a)(4) by redesignating subparagraph (D) as (E), by striking "and" at the end of subparagraph (C), and by inserting after subparagraph (C) the following:

"(D) purchasing and utilizing equipment that includes Smart Grid features and capability; and".

(6) In subsection (c), by striking "Not later than July 1, 2009," and inserting, "For each year when appropriations pursuant to the authorization in this section exceed $10,000,000,".

(7) In subsection (d) by striking "2010" and inserting "2020".

(8) In subsection (e) by striking "2010" and inserting "2020".

(b) TABLE OF CONTENTS.—The item relating to section 134 in the table of contents for the Energy Policy Act of 2005 (42 U.S.C. 15801 and following) is amended to read as follows:

"Sec. 134. Energy efficiency and Smart Grid public information initiative.".

SEC. 146. INCLUSION OF SMART GRID FEATURES IN APPLIANCE REBATE PROGRAM.

(a) AMENDMENTS.—Section 124 of the Energy Policy Act of 2005 (42 U.S.C. 15821) is amended as follows:

(1) By amending the section heading to read as follows: "**ENERGY EFFICIENT AND SMART APPLIANCE REBATE PROGRAM**.".

(2) By redesignating paragraphs (4) and (5) of subsection (a) as paragraphs (5) and (6), respectively, and inserting after paragraph (3) the following:

"(4) SMART APPLIANCE.—The term 'smart appliance' means a product that the Administrator of the Environmental Protection Agency or the Secretary of Energy has determined qualifies for such a designation in the Energy Star program pursuant to section 142 of the American Clean Energy and Security Act of 2009, or that the Secretary or the Administrator has separately determined includes the relevant Smart Grid capabilities listed in section 1301 of the Energy Independence and Security Act of 2007 (15 U.S.C. 17381).".

(3) In subsection (b)(1) by inserting "and smart" after "efficient" and by inserting after "products" the first place it appears ", including products designated as being smart appliances".

(4) In subsection (b)(3), by inserting "the administration of" after "carry out".

(5) In subsection (d), by inserting "the administration of" after "carrying out" and by inserting ", and up to 100 percent of the value of the rebates provided pursuant to this section" before the period at the end.

(6) In subsection (e)(3), by inserting ", with separate consideration as applicable if the product is also a smart appliance," after "Energy Star product" the first place it appears and by inserting "or smart appliance" before the period at the end.

(7) In subsection (f), by striking "$50,000,000" through the period at the end and inserting "$100,000,000 for each fiscal year from 2010 through 2015.".

(b) TABLE OF CONTENTS.—The item relating to section 124 in the table of contents for the Energy Policy Act of 2005 (42 U.S.C. 15801 and following) is amended to read as follows:

"Sec. 124. Energy efficient and smart appliance rebate program.".

Subtitle F—Transmission Planning

SEC. 151. TRANSMISSION PLANNING.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding after section 216 the following new section:

"SEC. 216A. TRANSMISSION PLANNING.

"(a) FEDERAL POLICY.—

"(1) OBJECTIVES.—It is the policy of the United States that regional electric grid planning should facilitate the deployment of renewable and other zero-carbon energy sources for generating electricity to reduce greenhouse gas emissions while ensuring reliability, reducing congestion, ensuring cyber-security, and providing for cost-effective electricity services throughout the United States.

"(2) OPTIONS.—In addition to the policy under paragraph (1), it is the policy of the United States that regional electric grid planning to meet these objectives should take into account all significant demand-side and supply-side options, including energy efficiency, distributed generation, renewable energy and zero-carbon electricity generation technologies, smart-grid technologies and practices, demand response, electricity storage, voltage regulation technologies, high capacity conductors with at least 25 percent greater efficiency than traditional ACSR (aluminum stranded conductors steel reinforced) conductors, superconductor technologies, underground transmission technologies, and new conventional electric transmission capacity and corridors.

"(b) PLANNING.—

"(1) PLANNING PRINCIPLES.—Not later than 1 year after the date of enactment of this section, the Commission shall adopt, after notice and opportunity for comment, national electricity grid planning principles derived from the Federal policy established under subsection (a) to be applied in ongoing and future transmission planning that may implicate interstate transmission of electricity.

"(2) REGIONAL PLANNING ENTITIES.—Not later than 3 months after the date of adoption by the Commission of national electricity grid planning principles pursuant to paragraph (1), entities that conduct or may conduct transmission planning pursuant to State or Federal law or regulation, including States, entities designated by States, public utility transmission providers, operators and owners, regional organizations, and electric utilities, and that are willing to incorporate the national electricity grid planning principles adopted by the Commission in their electric grid planning, shall identify themselves and the regions for which they propose to develop plans to the Commission.

"(3) COORDINATION OF REGIONAL PLANNING ENTITIES.—The Commission shall encourage regional planning entities described under paragraph (2) to cooperate and coordinate across regions and to harmonize regional electric grid planning with planning in adjacent or overlapping jurisdictions to the maximum extent feasible. The Commission shall work with States, public utilities transmission providers, load-serving entities, transmission operators, and other organizations to resolve any conflict or competition among proposed planning entities in order to build consensus and promote the Federal policy established under subsection (a). The Commission shall seek to ensure that planning that is consistent with the national electricity grid planning principles adopted pursuant to paragraph (1) is conducted in all regions of the United States and the territories.

"(4) RELATION TO EXISTING PLANNING POLICY.—In implementing the Federal policy established under subsection (a), the Commission shall—

"(A) incorporate any ongoing planning efforts undertaken pursuant to section 217; and

"(B) consult with and invite the participation of the Secretary of Energy in relationship to the Secretary's duties pursuant to section 216.

"(5) ASSISTANCE.—

"(A) IN GENERAL.—The Commission shall provide support to and participate in the regional grid planning processes conducted by regional planning entities. The Commission may provide planning resources and assistance as required or as requested by regional planning entities, including system data, cost information, system analysis, technical expertise, modeling support, dispute resolution services, and other assistance to regional planning entities, as appropriate.

"(B) AUTHORIZATION.—There are authorized to be appropriated such sums as may be necessary to carry out this paragraph.

"(6) CONFLICT RESOLUTION.—In the event that regional grid plans conflict, the Commission shall assist the regional planning entities in resolving such conflicts in order to achieve the objectives of the Federal policy established under subsection (a).

"(7) SUBMISSION OF PLANS.—The Commission shall require regional planning entities to submit initial regional electric grid plans to the Commission not later than 18 months after the date the Commission promulgates national electricity grid planning principles pursuant to paragraph (1). Regional electric grid plans should, in general, be developed from sub-regional requirements and plans, including planning input reflecting individual utility service areas. Regional plans may then in turn be combined into larger regional plans, up to interconnection-wide and national plans, as appropriate and necessary as determined by the Commission. The Commission shall review such plans for consistency with the national grid planning principles and may return a plan to one or more planning entities for further consideration, along with the Commission's own recommendations for resolution of any conflict or for improvement. To the extent practicable, all plans submitted to the Commission shall be public documents and available on the Commission's website.

"(8) MULTI-REGIONAL MEETINGS.—As regional grid plans are submitted to the Commission, the Commission may convene multi-regional meetings to discuss regional grid plan consistency and integration, including requirements for multi-regional projects, and to resolve any conflicts that emerge from such multi-regional projects. The Commission shall provide its recommendations for eliminating any inter-regional conflicts.

"(9) REPORT TO CONGRESS.—Not later than 3 years after the date of enactment of this section, the Commission shall provide a report to Congress containing the results of the regional grid planning process, including summaries of the adopted regional plans. The Commission shall provide an electronic version of its report on its website with links to all regional and sub-regional plans taken into account. The Commission shall note and provide its recommended resolution for any conflicts not resolved during the planning process. The Commission shall make any recommendations to Congress on the appropriate Federal role or support required to address the needs of the electric grid, including recommendations for addressing any needs that are beyond the reach of existing State and Federal authority.".

SEC. 152. NET METERING FOR FEDERAL AGENCIES.

(a) STANDARD.—Subsection (b) of section 113 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2623) is amended by adding the following new paragraph at the end thereof:

"(6) NET METERING FOR FEDERAL AGENCIES.—Each electric utility shall offer to arrange (either directly or through a third party) to make interconnection and net metering available to Federal Government agencies, offices, or facilities in accordance with the requirements of section 115(j). The standard under this paragraph shall apply only to electric utilities that sold over 4,000,000 megawatt hours of electricity in the preceding year to the ultimate consumers thereof. In the case of a standard under this paragraph, a period of 1 year after the date of the enactment of this section shall be substituted for the 2-year period referred to in other provisions of this section.".

(b) SPECIAL RULES.—Section 115 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625) is amended by adding the following new subsection at the end thereof:

"(j) NET METERING FOR FEDERAL AGENCIES.—(1) The standard under paragraph (6) of section 113(b) shall require that rates and charges and contract terms and conditions for the sale of electric energy to the Federal Government or agency shall be the same as the rates and charges and contract terms and conditions that would be applicable if the agency did not own or operate a qualified generation unit and use a net metering system.

"(2)(A) The standard under paragraph (6) of section 113(b) shall require that each electric utility shall arrange to provide to the Government office or agency that qualifies for net metering an electrical energy meter capable of net metering and measuring, to the maximum extent practicable, the flow of electricity to or from the customer, using a single meter and single register, the cost of which shall be recovered from the customer.

"(B) In a case in which it is not practicable to provide a meter under subparagraph (A), the utility (either directly or through a third party) shall, at the expense of the utility install 1 or more of those electric energy meters.

"(3)(A) The standard under paragraph (6) of section 113(b) shall require that each electric utility shall calculate the electric energy consumption for the Government office or agency using a net metering system that meets the requirements of this subsection and paragraph (6) of section 113(b) and shall measure the net electricity produced or consumed during the billing period using the metering installed in accordance with this paragraph.

"(B) If the electricity supplied by the retail electric supplier exceeds the electricity generated by the Government office or agency during the billing period, the Government office or agency shall be billed for the net electric energy supplied by the retail electric supplier in accordance with normal billing practices.

"(C) If electric energy generated by the Government office or agency exceeds the electric energy supplied by the retail electric supplier during the billing period, the Government office or agency shall be billed for the appropriate customer charges for that billing period and credited for the excess electric energy generated during the billing period, with the credit appearing as a kilowatt-hour credit on the bill for the following billing period.

"(D) Any kilowatt-hour credits provided to the Government office or agency as provided in this subsection shall be applied to the Government office or agency electric energy consumption on the following billing period bill (except for a billing period that ends in the next calendar year). At the beginning of each calendar year, any unused kilowatt-hour credits remaining from the preceding year will carry over to the new year.

"(4) The standard under paragraph (6) of section 113(b) shall require that each electric utility shall offer a meter and retail billing arrangement that has time-differentiated rates. The kilowatt-hour credit shall be based on the ratio representing the difference in retail rates for each time-of-use rate, or the credits shall be reflected on the bill of the Government office or agency as a monetary credit reflecting retail rates at the time of generation of the electric energy by the customer-generator.

"(5) The standard under paragraph (6) of section 113(b) shall require that the qualified generation unit, interconnection standards, and net metering system used by the Government office or agency shall meet all applicable safety and performance and reliability standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, and the American National Standards Institute.

"(6) The standard under paragraph (6) of section 113(b) shall require that electric utilities shall not make additional charges, including standby charges, for equipment or services for safety or performance that are in addition to those necessary to meet the other standards and requirements of this subsection and paragraph (6) of section 113(b).

"(7) For purposes of this subsection and paragraph (6) of section 113(b):

"(A) The term 'Government' means any office, facility, or agency of the Federal Government.

"(B) The term 'customer-generator' means the owner or operator of a electricity generation unit.

"(C) The term 'electric generation unit' means any renewable electric generation unit that is owned, operated, or sited on a Federal Government facility.

"(D) The term 'net metering' means the process of—

"(i) measuring the difference between the electricity supplied to a customer-generator and the electricity generated by the customer-generator that is delivered to a utility at the same point of interconnection during an applicable billing period; and

"(ii) providing an energy credit to the customer-generator in the form of a kilowatt-hour credit for each kilowatt-hour of electricity produced by the customer-generator from an electric generation unit.".

(c) SAVINGS PROVISION.—If this section or a portion of this section is determined to be invalid or unenforceable, that shall not affect the validity or enforceability of any other provision of this Act.

SEC. 153. SUPPORT FOR QUALIFIED ADVANCED ELECTRIC TRANSMISSION MANUFACTURING PLANTS, QUALIFIED HIGH EFFICIENCY TRANSMISSION PROPERTY, AND QUALIFIED ADVANCED ELECTRIC TRANSMISSION PROPERTY.

(a) LOAN GUARANTEES PRIOR TO SEPTEMBER 30, 2011.—Section 1705(a) of the Energy Policy Act of 2005 (42 U.S.C. 16515(a)), as added by section 406 of the American Recovery and Reinvestment Act of 2009 (Public Law 109-58; 119 Stat. 594) is amended by adding the following new paragraph at the end thereof:

"(5) The development, construction, acquisition, retrofitting, or engineering integration of a qualified advanced electric transmission manufacturing plant or the construction of a qualified high efficiency transmission property or a quali-

fied advanced electric transmission property (whether by construction of new facilities or the modification of existing facilities). For purposes of this paragraph:

"(A) The term 'qualified advanced electric transmission property' means any high voltage electric transmission cable, related substation, converter station, or other integrated facility that—

"(i) utilizes advanced ultra low resistance superconductive material or other advanced technology that has been determined by the Secretary of Energy as—

"(I) reasonably likely to become commercially viable within 10 years after the date of enactment of this paragraph;

"(II) capable of reliably transmitting at least 5 gigawatts of high-voltage electric energy for distances greater than 300 miles with energy losses not exceeding 3 percent of the total power transported; and

"(III) not creating an electromagnetic field;

"(ii) has been determined by an appropriate energy regulatory body, upon application, to be in the public interest and thereby eligible for inclusion in regulated rates; and

"(iii) can be located safely and economically in a permanent underground right of way not to exceed 25 feet in width.

The term 'qualified advanced electric transmission property' shall not include any property placed in service after December 31, 2016.

"(B)(i) The term 'qualified high efficiency transmission property' means any high voltage overhead electric transmission line, related substation, or other integrated facility that—

"(I) utilizes advanced conductor core technology that—

"(aa) has been determined by the Secretary of Energy as reasonably likely to become commercially viable within 10 years after the date of enactment of this paragraph;

"(bb) is suitable for use on transmission lines up to 765kV; and

"(cc) exhibits power losses at least 30 percent lower than that of transmission lines using conventional 'ACSR' conductors;

"(II) has been determined by an appropriate energy regulatory body, upon application, to be in the public interest and thereby eligible for inclusion in regulated rates; and

"(III) can be located safely and economically in a right of way not to exceed that used by conventional 'ACSR' conductors; and

"(ii) The term 'qualified high efficiency transmission property' shall not include any property placed in service after December 31, 2016.

"(C) The term 'qualified advanced electric transmission manufacturing plant' means any industrial facility located in the United States which can be equipped, re-equipped, expanded, or established to produce in whole or in part qualified advanced electric transmission property.".

(b) ADDITIONAL LOAN GUARANTEE AUTHORITY.—Section 1703 of the Energy Policy Act of 2005 (42 U.S.C. 16513) is amended by adding the following new paragraph at the end of subsection (b):

"(12) The development, construction, acquisition, retrofitting, or engineering integration of a qualified advanced electric transmission manufacturing plant or the construction of a qualified advanced electric transmission property (whether by construction of new facilities or the modification of existing facilities). For purposes of this paragraph, the terms 'qualified advanced electric transmission property' and 'qualified advanced electric transmission manufacturing plant' have the meanings provided by section 1705(a)(5).".

(c) GRANTS.—The Secretary of Energy is authorized to provide grants for up to 50 percent of costs incurred in connection with the development, construction, acquisition of components for, or engineering of a qualified advanced electric transmission property defined in paragraph (5) of section 1705(a) of the Energy Policy Act of 2005 (42 U.S.C. 16515(a)). Such grants may only be made to the first project which qualifies under that paragraph. There are authorized to be appropriated for purposes of this subsection not more than $100,000,000 for fiscal year 2010. The United States shall take no equity or other ownership interest in the qualified advanced electric transmission manufacturing plant or qualified advanced electric transmission property for which funding is provided under this subsection.

Subtitle G—Technical Corrections to Energy Laws

SEC. 161. TECHNICAL CORRECTIONS TO ENERGY INDEPENDENCE AND SECURITY ACT OF 2007.

(a) TITLE III—ENERGY SAVINGS THROUGH IMPROVED STANDARDS FOR APPLIANCE AND LIGHTING.—(1) Section 325(u) of the Energy Policy and Conservation Act (42 U.S.C. 6295(u)) (as amended by section 301(c) of the Energy Independence and Security Act of 2007 (121 Stat. 1550)) is amended—

(A) by redesignating paragraph (7) as paragraph (4); and

(B) in paragraph (4) (as so redesignated), by striking "supplies is" and inserting "supply is".

(2) Section 302 of the Energy Independence and Security Act of 2007 (121 Stat. 1551)) is amended—

(A) in subsection (a), by striking "end of the paragraph" and inserting "end of subparagraph (A)"; and

(B) in subsection (b), by striking "6313(a)" and inserting "6314(a)".

(3) Section 343(a)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)(1)) (as amended by section 302(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1551)) is amended—

(A) by striking "TEST PROCEDURES" and all that follows through "At least once" and inserting "TEST PROCEDURES.—At least once"; and

(B) by redesignating clauses (i) and (ii) as subparagraphs (A) and (B), respectively (and by moving the margins of such subparagraphs 2 ems to the left).

(4) Section 342(a)(6) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)(6)) (as amended by section 305(b)(2) of the Energy Independence and Security Act of 2007 (121 Stat. 1554)) is amended—

(A) in subparagraph (B)—

(i) by striking "If the Secretary" and inserting the following:

"(i) IN GENERAL.—If the Secretary";

(ii) by striking "clause (ii)(II)" and inserting "subparagraph (A)(ii)(II)";

(iii) by striking "clause (i)" and inserting "subparagraph (A)(i)"; and

(iv) by adding at the end the following:

"(ii) FACTORS.—In determining whether a standard is economically justified for the purposes of subparagraph (A)(ii)(II), the Secretary shall, after receiving views and comments furnished with respect to the proposed standard, determine whether the benefits of the standard exceed the burden of the proposed standard by, to the maximum extent practicable, considering—

"(I) the economic impact of the standard on the manufacturers and on the consumers of the products subject to the standard;

"(II) the savings in operating costs throughout the estimated average life of the product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the products that are likely to result from the imposition of the standard;

"(III) the total projected quantity of energy savings likely to result directly from the imposition of the standard;

"(IV) any lessening of the utility or the performance of the products likely to result from the imposition of the standard;

"(V) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;

"(VI) the need for national energy conservation; and

"(VII) other factors the Secretary considers relevant.

"(iii) ADMINISTRATION.—

"(I) ENERGY USE AND EFFICIENCY.—The Secretary may not prescribe any amended standard under this paragraph that increases the maximum allowable energy use, or decreases the minimum required energy efficiency, of a covered product.

"(II) UNAVAILABILITY.—

"(aa) IN GENERAL.—The Secretary may not prescribe an amended standard under this subparagraph if the Secretary finds (and publishes the finding) that interested persons have established by a preponderance of the evidence that a standard is likely to result in the unavailability in the United States in any product type (or class) of performance characteristics (including reliability, features, sizes, capacities, and volumes)

that are substantially the same as those generally available in the United States at the time of the finding of the Secretary.

"(bb) OTHER TYPES OR CLASSES.—The failure of some types (or classes) to meet the criterion established under this subclause shall not affect the determination of the Secretary on whether to prescribe a standard for the other types or classes."; and

(B) in subparagraph (C)(iv), by striking "An amendment prescribed under this subsection" and inserting "Notwithstanding subparagraph (D), an amendment prescribed under this subparagraph".

(5) Section 342(a)(6)(B)(iii) of the Energy Policy and Conservation Act (as added by section 306(c) of the Energy Independence and Security Act of 2007) is transferred and redesignated as clause (vi) of section 342(a)(6)(C) of the Energy Policy and Conservation Act (as amended by section 305(b)(2) of the Energy Independence and Security Act of 2007).

(6) Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) (as amended by sections 312(a)(2) and 314(a) of the Energy Independence and Security Act of 2007 (121 Stat. 1564, 1569)) is amended by redesignating paragraphs (22) and (23) (as added by section 314(a) of that Act) as paragraphs (23) and (24), respectively.

(7) Section 345 of the Energy Policy and Conservation Act (42 U.S.C. 6316) (as amended by section 312(e) of the Energy Independence and Security Act of 2007 (121 Stat. 1567)) is amended—

(A) by striking "subparagraphs (B) through (G)" each place it appears and inserting "subparagraphs (B), (C), (D), (I), (J), and (K)";

(B) by striking "part A" each place it appears and inserting "part B"; and

(C) in subsection (h)(3), by striking "section 342(f)(3)" and inserting "section 342(f)(4)".

(8) Section 340(13) of the Energy Policy and Conservation Act (42 U.S.C. 6311(13)) (as amended by section 313(a) of the Energy Independence and Security Act of 2007 (121 Stat. 1568)) is amended—

(A) by striking subparagraphs (A) and (B) and inserting the following:

"(A) IN GENERAL.—The term 'electric motor' means any motor that is—

"(i) a general purpose T-frame, single-speed, foot-mounting, poly-phase squirrel-cage induction motor of the National Electrical Manufacturers Association, Design A and B, continuous rated, operating on 230/460 volts and constant 60 Hertz line power as defined in NEMA Standards Publication MG1-1987; or

"(ii) a motor incorporating the design elements described in clause (i), but is configured to incorporate one or more of the following variations—

"(I) U-frame motor;

"(II) NEMA Design C motor;

"(III) close-coupled pump motor;

"(IV) footless motor;

"(V) vertical solid shaft normal thrust motor (as tested in a horizontal configuration);

"(VI) 8-pole motor; or

"(VII) poly-phase motor with a voltage rating of not more than 600 volts (other than 230 volts or 460 volts, or both, or can be operated on 230 volts or 460 volts, or both).."; and

(B) by redesignating subparagraphs (C) through (I) as subparagraphs (B) through (H), respectively.

(9)(A) Section 342(b) of the Energy Policy and Conservation Act (42 U.S.C. 6313(b)) is amended—

(i) in paragraph (1), by striking "paragraph (2)" and inserting "paragraph (3)";

(ii) by redesignating paragraphs (2) and (3) as paragraphs (3) and (4);

(iii) by inserting after paragraph (1) the following:

"(2) STANDARDS EFFECTIVE BEGINNING DECEMBER 19, 2010.—

"(A) IN GENERAL.—Except for definite purpose motors, special purpose motors, and those motors exempted by the Secretary under paragraph (3) and except as provided for in subparagraphs (B), (C), and (D), each electric motor manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-12.

"(B) FIRE PUMP ELECTRIC MOTORS.—Except for those motors exempted by the Secretary under paragraph (3), each fire pump electric motor manufactured with power ratings from 1 to 200 horsepower (alone or as a compo-

nent of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency that is not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-11.

"(C) NEMA DESIGN B ELECTRIC MOTORS.—Except for those motors exempted by the Secretary under paragraph (3), each NEMA Design B electric motor with power ratings of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-11.

"(D) MOTORS INCORPORATING CERTAIN DESIGN ELEMENTS.—Except for those motors exempted by the Secretary under paragraph (3), each electric motor described in section 340(13)(A)(ii) manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-11."; and

(iv) in paragraph (3) (as redesignated by clause (ii)), by striking "paragraph (1)" each place it appears in subparagraphs (A) and (D) and inserting "paragraphs (1) and (2)".

(B) Section 313 of the Energy Independence and Security Act of 2007 (121 Stat. 1568) is repealed.

(C) The amendments made by—

(i) subparagraph (A) shall take effect on December 19, 2010; and

(ii) subparagraph (B) shall take effect on December 19, 2007.

(10) Section 321(30)(D)(i)(III) of the Energy Policy and Conservation Act (42 U.S.C. 6291(30)(D)(i)(III)) (as amended by section 321(a)(1)(A) of the Energy Independence and Security Act of 2007 (121 Stat. 1574)) is amended by inserting before the semicolon the following: "or, in the case of a modified spectrum lamp, not less than 232 lumens and not more than 1,950 lumens".

(11) Section 321(30)(T) of the Energy Policy and Conservation Act (42 U.S.C. 6291(30)(T) (as amended by section 321(a)(1)(B) of the Energy Independence and Security Act of 2007 (121 Stat. 1574)) is amended—

(A) in clause (i)—

(i) by striking the comma after "household appliance" and inserting "and"; and

(ii) by striking "and is sold at retail,"; and

(B) in clause (ii), by inserting "when sold at retail," before "is designated".

(12) Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) (as amended by sections 321(a)(3)(A) and 322(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1577, 1588)) is amended by striking subsection (i) and inserting the following:

"(i) GENERAL SERVICE FLUORESCENT LAMPS, GENERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE BASE INCANDESCENT LAMPS, CANDELABRA BASE INCANDESCENT LAMPS, AND INCANDESCENT REFLECTOR LAMPS.—

"(1) ENERGY EFFICIENCY STANDARDS.—

"(A) IN GENERAL.—Each of the following general service fluorescent lamps, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps, and incandescent reflector lamps manufactured after the effective date specified in the tables listed in this subparagraph shall meet or exceed the following lamp efficacy, new maximum wattage, and CRI standards:

"FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
4-foot medium bi-pin	>35 W	69	75.0	36
	≤35 W	45	75.0	36
2-foot U-shaped	>35 W	69	68.0	36
	≤35 W	45	64.0	36
8-foot slimline	65 W	69	80.0	18
	≤65 W	45	80.0	18
8-foot high output	>100 W	69	80.0	18
	≤100 W	45	80.0	18

"INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
40–50	10.5	36
51–66	11.0	36
67–85	12.5	36
86–115	14.0	36
116–155	14.5	36
156–205	15.0	36

"GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	Maximum Rated Wattage	Minimum Rated Lifetime	Effective Date
1490–2600	72	1,000 hrs	1/1/2012
1050–1489	53	1,000 hrs	1/1/2013
750–1049	43	1,000 hrs	1/1/2014
310–749	29	1,000 hrs	1/1/2014

"MODIFIED SPECTRUM GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	Maximum Rated Wattage	Minimum Rated Lifetime	Effective Date
1118–1950	72	1,000 hrs	1/1/2012
788–1117	53	1,000 hrs	1/1/2013
563–787	43	1,000 hrs	1/1/2014
232–562	29	1,000 hrs	1/1/2014

"(B) APPLICATION.—

"(i) APPLICATION CRITERIA.—This subparagraph applies to each lamp that—

"(I) is intended for a general service or general illumination application (whether incandescent or not);

"(II) has a medium screw base or any other screw base not defined in ANSI C81.61–2006;

"(III) is capable of being operated at a voltage at least partially within the range of 110 to 130 volts; and

"(IV) is manufactured or imported after December 31, 2011.

"(ii) REQUIREMENT.—For purposes of this paragraph, each lamp described in clause (i) shall have a color rendering index that is greater than or equal to—

"(I) 80 for nonmodified spectrum lamps; or

"(II) 75 for modified spectrum lamps.

"(C) CANDELABRA INCANDESCENT LAMPS AND INTERMEDIATE BASE INCANDESCENT LAMPS.—

"(i) CANDELABRA BASE INCANDESCENT LAMPS.—Effective beginning January 1, 2012, a candelabra base incandescent lamp shall not exceed 60 rated watts.

"(ii) INTERMEDIATE BASE INCANDESCENT LAMPS.—Effective beginning January 1, 2012, an intermediate base incandescent lamp shall not exceed 40 rated watts.

"(D) EXEMPTIONS.—

"(i) STATUTORY EXEMPTIONS.—The standards specified in subparagraph (A) shall not apply to the following types of incandescent reflector lamps:

"(I) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps.

"(II) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps.

"(III) R20 incandescent reflector lamps rated 45 watts or less.

"(ii) ADMINISTRATIVE EXEMPTIONS.—

"(I) PETITION.—Any person may petition the Secretary for an exemption for a type of general service lamp from the requirements of this subsection.

"(II) CRITERIA.—The Secretary may grant an exemption under subclause (I) only to the extent that the Secretary finds, after a hearing and opportunity for public comment, that it is not technically feasible to serve a specialized lighting application (such as a military, medical, public safety, or certified historic lighting application) using a lamp that meets the requirements of this subsection.

"(III) ADDITIONAL CRITERION.—To grant an exemption for a product under this clause, the Secretary shall include, as an additional criterion, that the exempted product is unlikely to be used in a general service lighting application.

"(E) EXTENSION OF COVERAGE.—

"(i) PETITION.—Any person may petition the Secretary to establish standards for lamp shapes or bases that are excluded from the definition of general service lamps.

"(ii) INCREASED SALES OF EXEMPTED LAMPS.—The petition shall include evidence that the availability or sales of exempted incandescent lamps have increased significantly since the date on which the standards on general service incandescent lamps were established.

"(iii) CRITERIA.—The Secretary shall grant a petition under clause (i) if the Secretary finds that—

"(I) the petition presents evidence that demonstrates that commercial availability or sales of exempted incandescent lamp types have increased significantly since the standards on general service lamps were established and likely are being widely used in general lighting applications; and

"(II) significant energy savings could be achieved by covering exempted products, as determined by the Secretary based in part on sales data provided to the Secretary from manufacturers and importers.

"(iv) NO PRESUMPTION.—The grant of a petition under this subparagraph shall create no presumption with respect to the determination of the Secretary with respect to any criteria under a rulemaking conducted under this section.

"(v) EXPEDITED PROCEEDING.—If the Secretary grants a petition for a lamp shape or base under this subparagraph, the Secretary shall—

"(I) conduct a rulemaking to determine standards for the exempted lamp shape or base; and

"(II) complete the rulemaking not later than 18 months after the date on which notice is provided granting the petition.

"(F) EFFECTIVE DATES.—

"(i) IN GENERAL.—In this paragraph, except as otherwise provided in a table contained in subparagraph (A) or in clause (ii), the term 'effective date' means the last day of the month specified in the table that follows October 24, 1992.

"(ii) SPECIAL EFFECTIVE DATES.—

"(I) ER, BR, AND BPAR LAMPS.—The standards specified in subparagraph (A) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

"(II) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (A) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after the later of January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

"(2) COMPLIANCE WITH EXISTING LAW.—Notwithstanding section 332(a)(5) and section 332(b), it shall not be unlawful for a manufacturer to sell a lamp that is in compliance with the law at the time the lamp was manufactured.

"(3) RULEMAKING BEFORE OCTOBER 24, 1995.—

"(A) IN GENERAL.—Not later than 36 months after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than the end of the 54-month period beginning on October

24, 1992, to determine whether the standards established under paragraph (1) should be amended.

"(B) ADMINISTRATION.—The rule shall contain the amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date on which the final rule is published.

"(4) RULEMAKING BEFORE OCTOBER 24, 2000.—

"(A) IN GENERAL.—Not later than 8 years after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than 9 years and 6 months after October 24, 1992, to determine whether the standards in effect for fluorescent lamps and incandescent lamps should be amended.

"(B) ADMINISTRATION.—The rule shall contain the amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date on which the final rule is published.

"(5) RULEMAKING FOR ADDITIONAL GENERAL SERVICE FLUORESCENT LAMPS.—

"(A) IN GENERAL.—Not later than the end of the 24-month period beginning on the date labeling requirements under section 324(a)(2)(C) become effective, the Secretary shall—

"(i) initiate a rulemaking procedure to determine whether the standards in effect for fluorescent lamps and incandescent lamps should be amended so that the standards would be applicable to additional general service fluorescent lamps; and

"(ii) publish, not later than 18 months after initiating the rulemaking, a final rule including the amended standards, if any.

"(B) ADMINISTRATION.—The rule shall provide that the amendment shall apply to products manufactured after a date which is 36 months after the date on which the rule is published.

"(6) STANDARDS FOR GENERAL SERVICE LAMPS.—

"(A) RULEMAKING BEFORE JANUARY 1, 2014.—

"(i) IN GENERAL.—Not later than January 1, 2014, the Secretary shall initiate a rulemaking procedure to determine whether—

"(I) standards in effect for general service lamps should be amended; and

"(II) the exclusions for certain incandescent lamps should be maintained or discontinued based, in part, on excluded lamp sales collected by the Secretary from manufacturers.

"(ii) SCOPE.—The rulemaking—

"(I) shall not be limited to incandescent lamp technologies; and

"(II) shall include consideration of a minimum standard of 45 lumens per watt for general service lamps.

"(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2017, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

"(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

"(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

"(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

"(v) BACKSTOP REQUIREMENT.—If the Secretary fails to complete a rulemaking in accordance with clauses (i) through (iv) or if the final rule does not produce savings that are greater than or equal to the savings from a minimum efficacy standard of 45 lumens per watt, effective beginning January 1, 2020, the Secretary shall prohibit the manufacture of any general service lamp that does not meet a minimum efficacy standard of 45 lumens per watt.

"(vi) STATE PREEMPTION.—Neither section 327(c) nor any other provision of law shall preclude California or Nevada from adopting, effective beginning on or after January 1, 2018—

"(I) a final rule adopted by the Secretary in accordance with clauses (i) through (iv);

"(II) if a final rule described in subclause (I) has not been adopted, the backstop requirement under clause (v); or

"(III) in the case of California, if a final rule described in subclause (I) has not been adopted, any California regulations relating to these covered products adopted pursuant to State statute in effect as of the date of enactment of the Energy Independence and Security Act of 2007.

"(B) RULEMAKING BEFORE JANUARY 1, 2020.—

"(i) IN GENERAL.—Not later than January 1, 2020, the Secretary shall initiate a rulemaking procedure to determine whether—

"(I) standards in effect for general service lamps should be amended; and

"(II) the exclusions for certain incandescent lamps should be maintained or discontinued based, in part, on excluded lamp sales data collected by the Secretary from manufacturers.

"(ii) SCOPE.—The rulemaking shall not be limited to incandescent lamp technologies.

"(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2022, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

"(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

"(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

"(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

"(7) FEDERAL ACTIONS.—

"(A) COMMENTS OF SECRETARY.—

"(i) IN GENERAL.—With respect to any lamp to which standards are applicable under this subsection or any lamp specified in section 346, the Secretary shall inform any Federal entity proposing actions that would adversely impact the energy consumption or energy efficiency of the lamp of the energy conservation consequences of the action.

"(ii) CONSIDERATION.—The Federal entity shall carefully consider the comments of the Secretary.

"(B) AMENDMENT OF STANDARDS.—Notwithstanding section 325(n)(1), the Secretary shall not be prohibited from amending any standard, by rule, to permit increased energy use or to decrease the minimum required energy efficiency of any lamp to which standards are applicable under this subsection if the action is warranted as a result of other Federal action (including restrictions on materials or processes) that would have the effect of either increasing the energy use or decreasing the energy efficiency of the product.

"(8) COMPLIANCE.—

"(A) IN GENERAL.—Not later than the date on which standards established pursuant to this subsection become effective, or, with respect to high-intensity discharge lamps covered under section 346, the effective date of standards established pursuant to that section, each manufacturer of a product to which the standards are applicable shall file with the Secretary a laboratory report certifying compliance with the applicable standard for each lamp type.

"(B) CONTENTS.—The report shall include the lumen output and wattage consumption for each lamp type as an average of measurements taken over the preceding 12-month period.

"(C) OTHER LAMP TYPES.—With respect to lamp types that are not manufactured during the 12-month period preceding the date on which the standards become effective, the report shall—

"(i) be filed with the Secretary not later than the date that is 12 months after the date on which manufacturing is commenced; and

"(ii) include the lumen output and wattage consumption for each such lamp type as an average of measurements taken during the 12-month period.".

(13) Section 325(l)(4)(A) of the Energy Policy and Conservation Act (42 U.S.C. 6295(l)(4)(A)) (as amended by section 321(a)(3)(B) of the Energy Independence and Security Act of 2007 (121 Stat. 1581)) is amended by striking "only".

(14) Section 327(b)(1)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6297(b)(1)(B)) (as amended by section 321(d)(3) of the Energy Independence and Security Act of 2007 (121 Stat. 1585)) is amended—

(A) in clause (i), by inserting "and" after the semicolon at the end;

(B) in clause (ii), by striking "; and" and inserting a period; and

(C) by striking clause (iii).

(15) Section 321(e) of the Energy Independence and Security Act of 2007 (121 Stat. 1586) is amended—

(A) in the matter preceding paragraph (1), by striking "is amended" and inserting "(as amended by section 306(b)) is amended"; and

(B) by striking paragraphs (1) and (2) and inserting the following:

"(1) in paragraph (5), by striking 'or' after the semicolon at the end;

"(2) in paragraph (6), by striking the period at the end and inserting '; or'; and".

(16) Section 332(a) of the Energy Policy and Conservation Act (42 U.S.C. 6302(a)) (as amended by section 321(e) of the Energy Independence and Security Act of 2007 (121 Stat. 1586)) is amended by redesignating the second paragraph (6) as paragraph (7).

(17) Section 321(30)(C)(ii) of the Energy Policy and Conservation Act (42 U.S.C. 6291(30)(C)(ii)) (as amended by section 322(a)(1)(B) of the Energy Independence and Security Act of 2007 (121 Stat. 1587)) is amended by inserting a period after "40 watts or higher".

(18) Section 322(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1588)) is amended by striking "6995(i)" and inserting "6295(i)".

(19) Section 327(c) of the Energy Policy and Conservation Act (42 U.S.C. 6297(c)) (as amended by sections 324(f) of the Energy Independence and Security Act of 2007 (121 Stat. 1594)) is amended—

(A) in paragraph (6), by striking "or" after the semicolon at the end;

(B) in paragraph (8)(B), by striking "and" after the semicolon at the end;

(C) in paragraph (9)—

(i) by striking "except that—" and all that follows through "if the Secretary fails to issue" and inserting "except that if the Secretary fails to issue";

(ii) by redesignating clauses (i) and (ii) as subparagraphs (A) and (B), respectively (and by moving the margins of such subparagraphs 2 ems to the left); and

(iii) by striking the period at the end and inserting a semicolon; and

(D) by adding at the end the following:

"(10) is a regulation for general service lamps that conforms with Federal standards and effective dates;

"(11) is an energy efficiency standard for general service lamps enacted into law by the State of Nevada prior to December 19, 2007, if the State has not adopted the Federal standards and effective dates pursuant to subsection (b)(1)(B)(ii); or".

(20) Section 325(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1596)) is amended by striking "6924(c)" and inserting "6294(c)".

(b) TITLE IV—ENERGY SAVINGS IN BUILDINGS AND INDUSTRY.—(1) Section 401 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17061) is amended—

(A) in paragraph (2), by striking "484" and inserting "494"; and

(B) in paragraph (13), by striking "Agency" and inserting "Administration".

(2) Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) (as amended by section 411(a) of the Energy Independence and Security Act of 2007 (121 Stat. 1600)) is amended by striking 1 of the 2 periods at the end of paragraph (5).

(3) Section 305(a)(3)(D)(i) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)(D)(i)) (as amended by section 433(a) of the Energy Independence and Security Act of 2007 (121 Stat. 1612)) is amended—

(A) in subclause (I)—

(i) by striking "in fiscal year 2003 (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency" and inserting "as measured by the calendar year 2003 Commercial Buildings Energy Consumption Survey or the calendar year 2005 Residential Energy Consumption Survey data from the Energy Information Administration"; and

(ii) in the table at the end, by striking **"Fiscal Year"** and inserting **"Calendar Year"**; and

(B) in subclause (II)—

(i) by striking "(II) Upon petition" and inserting the following:

"(II) DOWNWARD ADJUSTMENT OF NUMERIC REQUIREMENT.—

"(aa) IN GENERAL.—On petition"; and

(ii) by striking the last sentence and inserting the following:

"(bb) EXCEPTIONS TO REQUIREMENT FOR CONCURRENCE OF SECRETARY.—

"(AA) IN GENERAL.—The requirement to petition and obtain the concurrence of the Secretary under this subclause shall not apply to any Federal building with respect to which the Administrator of General Services is required to transmit a prospectus to Congress under section 3307 of title 40, United States Code, or to any other Federal building designed, constructed, or renovated by the Administrator if the Administrator certifies, in writing, that meeting the applicable numeric requirement under subclause (I) with respect to the Federal building would be technically impracticable in light of the specific functional needs for the building.

"(BB) ADJUSTMENT.—In the case of a building described in subitem (AA), the Administrator may adjust the applicable numeric requirement of subclause (I) downward with respect to the building.".

(4) Section 436(c)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(c)(3)) is amended by striking "474" and inserting "494".

(5) Section 440 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17096) is amended by striking "and 482".

(6) Section 373(c) of the Energy Policy and Conservation Act (42 U.S.C. 6343(c)) (as amended by section 451(a) of the Energy Independence and Security Act of 2007 (121 Stat. 1628)) is amended by striking "Administrator" and inserting "Secretary".

(c) DATE OF ENACTMENT.—Section 1302 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17382) is amended in the first sentence by striking "enactment" and inserting "the date of enactment of this Act".

(d) REFERENCE.—Section 1306(c)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17386(c)(3)) is amended by striking "section 1307 (paragraph (17) of section 111(d) of the Public Utility Regulatory Policies Act of 1978)" and inserting "paragraph (19) of section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d))".

(e) EFFECTIVE DATE.—This section and the amendments made by this section take effect as if included in the Energy Independence and Security Act of 2007 (Public Law 110–140; 121 Stat. 1492).

SEC. 162. TECHNICAL CORRECTIONS TO ENERGY POLICY ACT OF 2005.

(a) TITLE I—ENERGY EFFICIENCY.—Section 325(g)(8)(C)(ii) of the Energy Policy and Conservation Act (42 U.S.C. 6295(g)(8)(C)(ii)) (as added by section 135(c)(2)(B) of the Energy Policy Act of 2005) is amended by striking "20°F" and inserting "−20°F".

(b) EFFECTIVE DATE.—This section and the amendments made by this section take effect as if included in the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 594).

Subtitle H—Energy and Efficiency Centers

SEC. 171. CLEAN ENERGY INNOVATION CENTERS.

(a) PURPOSE.—The Secretary shall carry out a program to establish Clean Energy Innovation Centers to enhance the Nation's economic, environmental, and energy security by promoting commercial deployment of clean, indigenous energy alternatives to oil and other fossil fuels, reducing greenhouse gas emissions, and ensuring that the United States maintains a technological lead in developing and deploying state-of-the-art energy technologies. To achieve these purposes the program shall—

(1) leverage the expertise and resources of the university and private research communities, industry, venture capital, national laboratories, and other participants in energy innovation to support cross-disciplinary research and development in areas not being served by the private sector in order to develop and transfer innovative clean energy technologies into the marketplace;

(2) expand the knowledge base and human capital necessary to transition to a low-carbon economy; and

(3) promote regional economic development by cultivating clusters of clean energy technology firms, private research organizations, suppliers, and other complementary groups and businesses.

(b) DEFINITIONS.—For purposes of this section:

(1) ALLOWANCE.—The term "allowance" means an emission allowance established under section 721 of the Clean Air Act.

(2) CENTER.—The term "Center" means a Clean Energy Innovation Center established in accordance with this section.

(3) CLEAN ENERGY TECHNOLOGY.—The term "clean energy technology" means a technology that—

(A) produces energy from solar, wind, geothermal, biomass, tidal, wave, ocean, and other renewable energy resources (as such term is defined in section 610 of the Public Utility Regulatory Policies Act of 1978);

(B) more efficiently transmits, distributes, or stores energy;

(C) enhances energy efficiency for buildings and industry, including combined heat and power;

(D) enables the development of a Smart Grid (as described in section 1301 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17381)), including integration of renewable energy resources and distributed generation, demand response, demand side management, and systems analysis;

(E) produces an advanced or sustainable material with energy or energy efficiency applications;

(F) enhances water security through improved water management, conservation, distribution, and end use applications; or

(G) improves energy efficiency for transportation, including electric vehicles.

(4) CLUSTER.—The term "cluster" means a concentration of firms directly involved in the research, development, finance, and commercialization of clean energy technologies whose geographic proximity facilitates utilization and sharing of skilled human resources, infrastructure, research facilities, educational and training institutions, venture capital, and input suppliers.

(5) PROJECT.—The term "project" means an activity with respect to which a Center provides support under subsection (e).

(6) QUALIFYING ENTITY.—The term "qualifying entity" means each of the following:

(A) A research university.

(B) A State institution with a focus on the advancement of clean energy technologies.

(C) A nongovernmental organization with research or commercialization expertise in clean energy technology development.

(7) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(8) TECHNOLOGY FOCUS.—The term "technology focus" means the unique technology area in which a Center will specialize, and may include solar electricity, fuels from solar energy, batteries and energy storage, electricity grid systems and devices, energy efficient building systems and design, advanced materials, modeling and simulation, and other clean energy technology areas designated by the Secretary.

(9) TRANSLATIONAL RESEARCH.—The term "translational research" means clean energy technology research to coordinate basic or applied research with technical and commercial applications to enable promising discoveries or inventions to attract investment sufficient for market penetration and diffusion.

(c) ROLE OF THE SECRETARY.—The Secretary shall—

(1) have ultimate responsibility for, and oversight of, all aspects of the program under this section;

(2) provide for the distribution of allowances to consortia for the establishment of 8 Centers pursuant to this section, with each Center designated a unique technology focus area;

(3) coordinate the innovation activities of Centers with those occurring through other Department of Energy entities, including the National Laboratories, the Advanced Research Projects Agency—Energy, and Energy Frontier Research Centers, and within industry, and to avoid duplication of research, by annually—

(A) issuing guidance regarding national energy research and development priorities and strategic objectives; and

(B) convening a conference of staff of the Department of Energy and representatives from such other entities to share research results, program plans, and opportunities for collaboration.

(d) CONSORTIUM.—A consortium shall be eligible to receive allowances to support the establishment of a Center under this section if—

(1) it is composed of—

(A) 2 research universities with a combined annual research budget of $500,000,000; and

(B) no fewer than 1 additional qualifying entity;

(2) its members have established a binding agreement that documents—

(A) the structure of the partnership agreement;

(B) the governance and management structure to enable cost-effective implementation of the program;

(C) an intellectual property management policy;

(D) a conflicts of interest policy consistent with subsection (e)(4);

(E) an accounting structure that meets the requirements of the Department and can be audited under subsection (f)(3); and

(F) that it has an Advisory Board consistent with subsection (e)(3);

(3) it receives financial contributions from States, consortium participants, or other non-Federal sources, to be used pursuant to subsection (e)(2);

(4) it is part of an existing cluster or demonstrates high potential to develop a new cluster; and

(5) it operates as a nonprofit organization.

(e) CLEAN ENERGY INNOVATION CENTERS.—

(1) ROLE.—Centers shall provide support to activities leading to commercial deployment of clean energy technologies pursuant to the purposes of this section through issuance of awards to projects managed by qualifying entities and other entities meeting the Center's project criteria, including national laboratories. Each Center shall—

(A) develop and publish for public review and comment proposed plans, programs, and project selection criteria;

(B) submit an annual report to the Secretary summarizing the Center's activities, organizational expenditures, and Board members, which shall include a certification of compliance with conflict of interest policies and a description of each project in the research portfolio;

(C) establish policies—

(i) regarding intellectual property developed as a result of Center awards and other forms of technology support that encourage individual ingenuity and invention while speeding knowledge transfer and facilitating the establishment of rapid commercialization pathways;

(ii) to prevent resources provided to the Center from being used to displace private sector investment likely to otherwise occur, including investment from private sector entities which are members of the consortium;

(iii) to facilitate the participation of private investment firms or other private entities that invest in clean energy technologies to perform due diligence on award proposals, to participate in the award review process, and to provide guidance to projects supported by the Center; and

(iv) to facilitate the participation of entrepreneurs with a demonstrated history of commercializing clean energy technologies;

(D) oversee project solicitations, review proposed projects, and select projects for awards; and

(E) monitor project implementation.

(2) USE AND DISTRIBUTION OF AWARDS BY CENTERS.—A Center shall allocate awards and other support for—

(A) clean energy technology projects conducting translational research and related activities, at least 40 percent of which shall be utilized for projects related to the Center's technology focus; and

(B) administrative expenses, which may constitute no more than 10 percent of the award.

(3) ADVISORY BOARDS.—

(A) IN GENERAL.—Each Center shall establish an Advisory Board whose members shall have extensive and relevant scientific, technical, industry, financial, or research management expertise. The Advisory Board shall review the Center's proposed plans, programs, project selection criteria, and projects and shall ensure that projects selected for awards meet the conflict of interest policies of the Center. Advisory Board members other than those representing consortium members shall serve for no more than three years and must comply with conflict of interest provisions.

(B) MEMBERS.—Each Advisory Board shall consist of—

(i) 5 members selected by the consortium's research universities;

(ii) 2 members selected by the consortium's other qualifying entities; and

(iii) 2 members selected at large by other Board members to represent the entrepreneur and venture capital communities.

Individuals appointed under clause (iii) shall not be State or Federal employees or affiliated with the consortium's qualified entities.

(C) NONVOTING MEMBERS.—The Board shall also include 1 nonvoting member appointed by the Secretary.

(D) COMPENSATION.—Members of an Advisory Board may receive reimbursement for travel expenses and a reasonable stipend.

(4) CONFLICT OF INTEREST.—

(A) PROCEDURES.—Centers shall establish procedures to ensure that employees or consortia designees for Center activities who are in decision-making capacities shall—

(i) disclose any financial interests in, or financial relationships with, applicants for or recipients of awards under paragraph (1), including those of his or her spouse or minor child, unless such relationships or interests would be considered to be remote or inconsequential; and

(ii) recuse himself or herself from any funding decision for projects in which he or she has a personal financial interest.

(B) DISQUALIFICATION AND REVOCATION.—The Secretary may disqualify an application or revoke allowances distributed to the Center or awards provided under paragraph (1), if cognizant officials of the Center fail to comply with procedures required under subparagraph (A).

(f) DISTRIBUTION OF ALLOWANCES TO CLEAN ENERGY INNOVATION CENTERS.—

(1) SELECTION AND SCHEDULE.—Allowances to support the establishment of a Center shall be distributed through a competitive process. Not later than 120 days after the date of enactment of this Act, the Secretary shall solicit proposals from eligible consortia to establish Centers, which shall be submitted not later than 180 days after the date of enactment of this Act. The Secretary shall select the program consortia not later than 270 days after the date of enactment of this Act pursuant to subsection (d). The Secretary shall award 3 grants for the establishment of 3 Centers to be located on the campus of 1890 Land Grant Institution (as defined in section 2 of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7061)).

(2) TERM AND USE OF ALLOWANCES.—Allowances distributed to Centers shall be used to provide awards pursuant to subsection (e)(1). The amount of allowances distributed to support the establishment of a Center under this section shall not be less than 10 and not more than 30 percent of the allowances allocated under section 782(h) of the Clean Air Act, each year for a 6 year period. Centers shall be eligible to compete for additional allowance distribution after the expiration of the initial period. Centers shall establish award periods for individual awards. The transfer of allowances to a Center shall occur at the start of each calendar year.

(3) AUDIT.—Each Center shall conduct an annual audit to determine the extent to which allowances distributed to the Center, and awards under subsection (e) have been utilized in a manner consistent with this section. The auditor shall transmit a report of the results of the audit to the Secretary and to the Government Accountability Office. The Secretary shall include such report in the annual report to Congress, along with a plan to remedy any deficiencies cited in the report. The Government Accountability Office may review such audits as appropriate and shall have full access to the books, records, and personnel of the Center to ensure that allowances distributed to the Center, and awards made under subsection (e), have been utilized in a manner consistent with this section.

SEC. 172. BUILDING ASSESSMENT CENTERS.

(a) IN GENERAL.—The Secretary of Energy (in this section referred to as the "Secretary") shall provide funding to institutions of higher education for Building Assessment Centers to—

(1) identify opportunities for optimizing energy efficiency and environmental performance in existing buildings;

(2) promote high-efficiency building construction techniques and materials options;

(3) promote applications of emerging concepts and technologies in commercial and institutional buildings;

(4) train engineers, architects, building scientists, and building technicians in energy-efficient design and operation;

(5) assist local community colleges, trade schools, registered apprenticeship programs and other accredited training programs in training building technicians;

(6) promote research and development for the use of alternative energy sources to supply heat and power, for buildings, particularly energy-intensive buildings; and

(7) coordinate with and assist State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.

(b) COORDINATION WITH REGIONAL CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.—A Building Assessment Center may serve as a Center for Energy and Environmental Knowledge and Outreach established pursuant to section 173.

(c) COORDINATION AND DUPLICATION.—The Secretary shall coordinate efforts under this section with other programs of the Department of Energy and other Federal agencies to avoid duplication of effort.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $50,000,000 for fiscal year 2010 and each fiscal year thereafter.

SEC. 173. CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.

(a) REGIONAL CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.—

(1) ESTABLISHMENT.—The Secretary shall establish not more than 10 regional Centers for Energy and Environmental Knowledge and Outreach at institutions of higher education to coordinate with and advise industrial research and assessment centers, Building Assessment Centers, and Clean Energy Application Centers located in the region of such Center for Energy and Environmental Knowledge and Outreach.

(2) TECHNICAL ASSISTANCE PROGRAMS.—Each Center for Energy and Environmental Knowledge and Outreach shall consist of at least one, new or existing, high performing, of the following:

(A) An industrial research and assessment center.

(B) A Clean Energy Application Center.

(C) A Building Assessment Center.

(3) SELECTION CRITERIA.—The Secretary shall select Centers for Energy and Environmental Knowledge and Outreach through a competitive process, based on the following:

(A) Identification of the highest performing industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers.

(B) The degree to which an institution of higher education maintains credibility among regional private sector organizations such as trade associations, engineering associations, and environmental organizations.

(C) The degree to which an institution of higher education is providing or has provided technical assistance, academic leadership, and market leadership in the energy arena in a manner that is consistent with the areas of focus of industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers.

(D) The presence of an additional industrial research and assessment center, Clean Energy Application Center, or Building Assessment Center at the institution of higher education.

(4) GEOGRAPHIC DIVERSITY.—In selecting Centers for Energy and Environmental Knowledge and Outreach under this subsection, the Secretary shall ensure such Centers are distributed geographically in a relatively uniform manner to ensure all regions of the Nation are represented.

(5) REGIONAL LEADERSHIP.—Each Center for Energy and Environmental Knowledge and Outreach shall, to the extent possible, provide leadership to all other industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers located in the Center's geographic region, as determined by the Secretary. Such leadership shall include—

(A) developing regional goals specific to the purview of the industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers programs;

(B) developing regionally specific technical resources; and

(C) outreach to interested parties in the region to inform them of the information, resources, and services available through the associated industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers.

(6) FURTHER COORDINATION.—To increase the value and capabilities of the regionally associated industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers programs, Centers for Energy and Environmental Knowledge and Outreach shall—

(A) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Science and Technology;

(B) coordinate with the relevant programs in the Department of Energy, including the Building Technology Program and Industrial Technologies Program;

(C) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise and technologies of the National Laboratories to achieve the goals of the industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers;

(D) work with relevant municipal, county, and State economic development entities to leverage relevant financial incentives for capital investment and other policy tools for the protection and growth of local business and industry;

(E) partner with local professional and private trade associations and business development interests to leverage existing knowledge of local business challenges and opportunities;

(F) work with energy utilities and other administrators of publicly funded energy programs to leverage existing energy efficiency and clean energy programs;

(G) identify opportunities for reducing greenhouse gas emissions; and

(H) promote sustainable business practices for those served by the industrial research and assessment centers, Clean Energy Application Centers, and Building Assessment Centers.

(7) WORKFORCE TRAINING.—

(A) IN GENERAL.—The Secretary shall require each Center for Energy and Environmental Knowledge and Outreach to establish or maintain an internship program for the region of such Center, designed to encourage students who perform energy assessments to continue working with a particular company, building, or facility to help implement the recommendations contained in any such assessment provided to such company, building, or facility. Each Center for Energy and Environmental Knowledge and Outreach shall act as internship coordinator to help match students to available opportunities.

(B) FEDERAL SHARE.—The Federal share of the cost of carrying out internship programs described under subparagraph (A) shall be 50 percent.

(C) FUNDING.—Subject to the availability of appropriations, of the funds made available to carry out this subsection, the Secretary shall use to carry out this paragraph not less than $5,000,000 for fiscal year 2010 and each fiscal year thereafter.

(8) SMALL BUSINESS LOANS.—The Administrator of the Small Business Administration shall, to the maximum practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) for loans to implement recommendations of any industrial research and assessment center, Clean Energy Application Center, or Building Assessment Center.

(9) DEFINITIONS.—In this subsection:

(A) INDUSTRIAL RESEARCH AND ASSESSMENT CENTER.—The term "industrial research and assessment center" means a center established or maintained pursuant to section 452(e) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(e)).

(B) CLEAN ENERGY APPLICATION CENTER.—The term "Clean Energy Application Center" means a center redesignated and described section under section 375 of the Energy Policy and Conservation Act (42 U.S.C. 6345).

(C) BUILDING ASSESSMENT CENTER.—The term "Building Assessment Center" means an institution of higher education-based center established pursuant to section 172.

(D) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(10) FUNDING.—There are authorized to be appropriated to the Secretary to carry out this subsection $10,000,000 for fiscal year 2010 and each fiscal year thereafter. Subject to the availability of appropriations, of the funds made available to carry out this subsection, the Secretary shall provide to each Center for Energy and Environmental Knowledge and Outreach not less than $500,000 for fiscal year 2010 and each fiscal year thereafter.

(b) INTEGRATION OF OTHER TECHNICAL ASSISTANCE PROGRAMS.—

(1) CLEAN ENERGY APPLICATION CENTERS.—Section 375 of the Energy Policy and Conservation Act (42 U.S.C. 6345) is amended—

(A) by redesignating subsection (f) as subsection (g); and

(B) by adding after subsection (e) the following new subsection:

"(f) COORDINATION WITH CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.—A Clean Energy Application Center may serve as a Center for Energy and Environmental Knowledge and Outreach established pursuant to section 173 of the American Clean Energy and Security Act of 2009.".

(2) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—Section 452(e) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(e)) is amended—

(A) by striking "The Secretary" and all that follows through "shall be—" and inserting the following:

"(1) IN GENERAL.—The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers, whose purposes shall be—";

(B) by redesignating paragraphs (1) through (5) as subparagraphs (A) through (E), respectively (and by moving the margins of such subparagraphs 2 ems to the right); and

(C) by adding at the end the following new paragraph:

"(2) COORDINATION WITH CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.—An industrial research and assessment center may serve as a Center for Energy and Environmental Knowledge and Outreach established pursuant to section 173 of the American Clean Energy and Security Act of 2009.".

(c) ADDITIONAL FUNDING FOR CLEAN ENERGY APPLICATION CENTERS.—Subsection (g) of section 375 of the Energy Policy and Conservation Act (42 U.S.C. 6345(f)), as redesignated by subsection (b)(1) of this section, is amended by striking "$10,000,000 for each of fiscal years 2008 through 2012" and inserting "$30,000,000 for fiscal year 2010 and each fiscal year thereafter".

Subtitle I—Nuclear and Advanced Technologies

SEC. 181. REVISIONS TO LOAN GUARANTEE PROGRAM AUTHORITY.

(a) DEFINITION OF CONDITIONAL COMMITMENT.—Section 1701 of the Energy Policy Act of 2005 (42 U.S.C. 16511), as amended by section 130(a) of this Act, is amended by adding after paragraph (7) the following:

"(8) CONDITIONAL COMMITMENT.—The term 'conditional commitment' means a final term sheet negotiated between the Secretary and a project sponsor or sponsors, which term sheet shall be binding on both parties and become a final loan guarantee agreement if all conditions precedent established in the term sheet, which shall include the acquisition of all necessary permits and licenses, are satisfied.".

(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by striking subsection (b) and inserting the following:

"(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

"(1) IN GENERAL.—No guarantee shall be made unless—

"(A) an appropriation for the cost has been made;

"(B) the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury; or

"(C) a combination of appropriations or payments from the borrower has been made sufficient to cover the cost of the obligation.

"(2) LIMITATION.—The source of payments received from a borrower under paragraph (1)(B) shall not be a loan or other debt obligation that is made or guaranteed by the Federal Government.".

(c) FEES.—Section 1702(h) of the Energy Policy Act of 2005 (42 U.S.C. 16512(h)) is amended by striking paragraph (2) and inserting the following:

"(2) AVAILABILITY.—Fees collected under this subsection shall—

"(A) be deposited by the Secretary into a special fund in the Treasury to be known as the 'Incentives For Innovative Technologies Fund'; and

"(B) remain available to the Secretary for expenditure, without further appropriation or fiscal year limitation, for administrative expenses incurred in carrying out this title.".

(d) WAGE RATE REQUIREMENTS.—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by adding at the end the following new subsection:

"(k) WAGE RATE REQUIREMENTS.—No loan guarantee shall be made under this title unless the borrower has provided to the Secretary reasonable assurances that all laborers and mechanics employed by contractors and subcontractors in the performance of construction work financed in whole or in part by the guaranteed loan will be paid wages at rates not less than those prevailing on projects of a character similar to the contract work in the civil subdivision of the State in which the contract work is to be performed as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40, United States Code. With respect to the labor standards specified in this subsection, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan

Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.".

SEC. 182. PURPOSE.

The purpose of sections 183 through 189 of this subtitle is to promote the domestic development and deployment of clean energy technologies required for the 21st century through the establishment of a self-sustaining Clean Energy Deployment Administration that will provide for an attractive investment environment through partnership with and support of the private capital market in order to promote access to affordable financing for accelerated and widespread deployment of—

(1) clean energy technologies;

(2) advanced or enabling energy infrastructure technologies;

(3) energy efficiency technologies in residential, commercial, and industrial applications, including end-use efficiency in buildings; and

(4) manufacturing technologies for any of the technologies or applications described in this section.

SEC. 183. DEFINITIONS.

In this subtitle:

(1) ADMINISTRATION.—The term "Administration" means the Clean Energy Deployment Administration established by section 186.

(2) ADVISORY COUNCIL.—The term "Advisory Council" means the Energy Technology Advisory Council of the Administration.

(3) BREAKTHROUGH TECHNOLOGY.—The term "breakthrough technology" means a clean energy technology that—

(A) presents a significant opportunity to advance the goals developed under section 185, as assessed under the methodology established by the Advisory Council; but

(B) has generally not been considered a commercially ready technology as a result of high perceived technology risk or other similar factors.

(4) CLEAN ENERGY TECHNOLOGY.—The term "clean energy technology" means a technology related to the production, use, transmission, storage, control, or conservation of energy—

(A) that will contribute to a stabilization of atmospheric greenhouse gas concentrations thorough reduction, avoidance, or sequestration of energy-related emissions and—

(i) reduce the need for additional energy supplies by using existing energy supplies with greater efficiency or by transmitting, distributing, or transporting energy with greater effectiveness through the infrastructure of the United States; or

(ii) diversify the sources of energy supply of the United States to strengthen energy security and to increase supplies with a favorable balance of environmental effects if the entire technology system is considered; and

(B) for which, as determined by the Administrator, insufficient commercial lending is available to allow for widespread deployment.

(5) COST.—The term "cost" has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(6) DIRECT LOAN.—The term "direct loan" has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(7) FUND.—The term "Fund" means the Clean Energy Investment Fund established by section 184(a).

(8) LOAN GUARANTEE.—The term "loan guarantee" has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(9) NATIONAL LABORATORY.—The term "National Laboratory" has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(10) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(11) STATE.—The term "State" means—

(A) a State;

(B) the District of Columbia;

(C) the Commonwealth of Puerto Rico; and

(D) any other territory or possession of the United States.

(12) TECHNOLOGY RISK.—The term "technology risk" means the risks during construction or operation associated with the design, development, and deployment of clean energy technologies (including the cost, schedule, performance, reliability and maintenance, and accounting for the perceived risk), from the perspective of commercial lenders, that may be increased as a result of the absence of adequate historical construction, operating, or performance data from commercial applications of the technology.

SEC. 184. CLEAN ENERGY INVESTMENT FUND.

(a) ESTABLISHMENT.—There is established in the Treasury of the United States a revolving fund, to be known as the "Clean Energy Investment Fund", consisting of—

(1) such amounts as are deposited in the Fund under this subtitle; and

(2) such sums as may be appropriated to supplement the Fund.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Fund such sums as are necessary to carry out this subtitle.

(c) EXPENDITURES FROM FUND.—

(1) IN GENERAL.—Amounts in the Fund shall be available to the Administrator of the Administration for obligation without fiscal year limitation, to remain available until expended.

(2) ADMINISTRATIVE EXPENSES.—

(A) FEES.—Fees collected for administrative expenses shall be available without limitation to cover applicable expenses.

(B) FUND.—To the extent that administrative expenses are not reimbursed through fees, an amount not to exceed 1.5 percent of the amounts in the Fund as of the beginning of each fiscal year shall be available to pay the administrative expenses for the fiscal year necessary to carry out this subtitle.

(d) TRANSFERS OF AMOUNTS.—

(1) IN GENERAL.—The amounts required to be transferred to the Fund under this section shall be transferred at least monthly from the general fund of the Treasury to the Fund on the basis of estimates made by the Secretary of the Treasury.

(2) ADJUSTMENTS.—Proper adjustment shall be made in amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred.

SEC. 185. ENERGY TECHNOLOGY DEPLOYMENT GOALS.

(a) GOALS.—Not later than 1 year after the date of enactment of this Act, the Secretary, after consultation with the Advisory Council, shall develop and publish for review and comment in the Federal Register near-, medium-, and long-term goals (including numerical performance targets at appropriate intervals to measure progress toward those goals) for the deployment of clean energy technologies through the credit support programs established by section 187 to promote—

(1) sufficient electric generating capacity using clean energy technologies to meet the energy needs of the United States;

(2) clean energy technologies in vehicles and fuels that will substantially reduce the reliance of the United States on foreign sources of energy and insulate consumers from the volatility of world energy markets;

(3) a domestic commercialization and manufacturing capacity that will establish the United States as a world leader in clean energy technologies across multiple sectors;

(4) installation of sufficient infrastructure to allow for the cost-effective deployment of clean energy technologies appropriate to each region of the United States;

(5) the transformation of the building stock of the United States to zero net energy consumption;

(6) the recovery, use, and prevention of waste energy;

(7) domestic manufacturing of clean energy technologies on a scale that is sufficient to achieve price parity with conventional energy sources;

(8) domestic production of commodities and materials (such as steel, chemicals, polymers, and cement) using clean energy technologies so that the United States will become a world leader in environmentally sustainable production of the commodities and materials;

(9) a robust, efficient, and interactive electricity transmission grid that will allow for the incorporation of clean energy technologies, distributed generation, and demand-response in each regional electric grid;

(10) sufficient availability of financial products to allow owners and users of residential, retail, commercial, and industrial buildings to make energy efficiency and distributed generation technology investments with reasonable payback periods; and

(11) such other goals as the Secretary, in consultation with the Advisory Council, determines to be consistent with the purpose stated in section 182.

(b) REVISIONS.—The Secretary shall revise the goals established under subsection (a), from time to time as appropriate, to account for advances in technology and changes in energy policy.

SEC. 186. CLEAN ENERGY DEPLOYMENT ADMINISTRATION.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established in the Department of Energy an administration to be known as the Clean Energy Deployment Administration, under the direction of the Administrator of the Administration and the Board of Directors.

(2) STATUS.—

(A) IN GENERAL.—The Administration (including officers, employees, and agents of the Administration) shall not be responsible to, or subject to the authority, direction, or control of, any other officer, employee, or agent of the Department of Energy other than the Secretary, acting through the Administrator of the Administration.

(B) EXEMPTION FROM REORGANIZATION.—The Administration shall be exempt from the reorganization authority provided under section 643 of the Department of Energy Reorganization Act (42 U.S.C. 7253).

(C) INSPECTOR GENERAL.—Section 12 of the Inspector General Act of 1978 (5 U.S.C. App.) is amended—

(i) in paragraph (1), by inserting "the Administrator of the Clean Energy Deployment Administration;" after "Export-Import Bank;"; and

(ii) in paragraph (2), by inserting "the Clean Energy Deployment Administration," after "Export-Import Bank,".

(3) OFFICES.—

(A) PRINCIPAL OFFICE.—The Administration shall—

(i) maintain the principal office of the Administration in the District of Columbia; and

(ii) for purposes of venue in civil actions, be considered to be a resident of the District of Columbia.

(B) OTHER OFFICES.—The Administration may establish other offices in such other places as the Administration considers necessary or appropriate for the conduct of the business of the Administration.

(b) ADMINISTRATOR.—

(1) IN GENERAL.—The Administrator of the Administration shall be—

(A) appointed by the President, with the advice and consent of the Senate, for a 5-year term; and

(B) compensated at the annual rate of basic pay prescribed for level II of the Executive Schedule under section 5313 of title 5, United States Code.

(2) DUTIES.—The Administrator of the Administration shall—

(A) serve as the Chief Executive Officer of the Administration and Chairman of the Board;

(B) ensure that—

(i) the Administration operates in a safe and sound manner, including maintenance of adequate capital and internal controls (consistent with section 404 of the Sarbanes-Oxley Act of 2002 (15 U.S.C. 7262));

(ii) the operations and activities of the Administration foster liquid, efficient, competitive, and resilient energy and energy efficiency finance markets;

(iii) the Administration carries out the purpose stated in section 182 only through activities that are authorized under and consistent with sections 182 through 189; and

(iv) the activities of the Administration and the manner in which the Administration is operated are consistent with the public interest;

(C) develop policies and procedures for the Administration that will—

(i) promote a self-sustaining portfolio of investments that will maximize the value of investments to effectively promote clean energy technologies;

(ii) promote transparency and openness in Administration operations;

(iii) afford the Administration with sufficient flexibility to meet the purpose stated in section 182; and

(iv) provide for the efficient processing of applications; and

(D) with the concurrence of the Board, set expected loss reserves for the support provided by the Administration consistent with section 187(c).

(c) BOARD OF DIRECTORS.—

(1) IN GENERAL.—The Board of Directors of the Administration shall consist of—

(A) the Secretary or the designee of the Secretary, who shall serve as an ex-officio voting member of the Board of Directors;

(B) the Administrator of the Administration, who shall serve as the Chairman of the Board of Directors; and

(C) 7 additional members who shall—

(i) be appointed by the President, with the advice and consent of the Senate, for staggered 5-year terms; and

(ii) have experience in banking, financial services, technology assessment, energy regulation, or risk management, including individuals with substantial experience in the development of energy projects, the electricity generation sector, the transportation sector, the manufacturing sector, and the energy efficiency sector.

(2) DUTIES.—The Board of Directors shall—

(A) oversee the operations of the Administration and ensure industry best practices are followed in all financial transactions involving the Administration;

(B) consult with the Administrator of the Administration on the general policies and procedures of the Administration to ensure the interests of the taxpayers are protected;

(C) ensure the portfolio of investments are consistent with purpose stated in section 182 and with the long-term financial stability of the Administration;

(D) ensure that the operations and activities of the Administration are consistent with the development of a robust private sector that can provide commercial loans or financing products; and

(E) not serve on a full-time basis, except that the Board of Directors shall meet at least quarterly to review, as appropriate, applications for credit support and set policies and procedures as necessary.

No member of the Board shall take part in any review or decision of any project as to which that member or member's immediate family has a financial or other interest.

(3) REMOVAL.—An appointed member of the Board of Directors may be removed from office by the President for good cause.

(4) VACANCIES.—An appointed seat on the Board of Directors that becomes vacant shall be filled by appointment by the President, but only for the unexpired portion of the term of the vacating member.

(5) COMPENSATION OF MEMBERS.—An appointed member of the Board of Directors shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level III of the Executive Schedule under section 5314 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Board of Directors.

(d) ENERGY TECHNOLOGY ADVISORY COUNCIL.—

(1) IN GENERAL.—The Administration shall have an Energy Technology Advisory Council consisting of—

(A) 5 members selected by the Secretary; and

(B) 3 members selected by the Board of Directors of the Administration.

(2) QUALIFICATIONS.—The members of the Advisory Council shall—

(A) have relevant scientific expertise; and

(B) in the case of the members selected by the Secretary under paragraph (1)(A), include representatives of—

(i) the academic community;

(ii) the private research community;

(iii) National Laboratories;

(iv) the technology or project development community; and

(v) the commercial energy financing and operations sector.

(3) DUTIES.—The Advisory Council shall—

(A) develop and publish for comment in the Federal Register a methodology for assessment of clean energy technologies that will allow the Administration to evaluate projects based on the progress likely to be achieved per-dollar invested in maximizing the attributes of the definition of clean energy technology, taking into account the extent to which support for a clean energy technology is likely to accrue subsequent benefits that are attributable to a commercial scale deployment taking place earlier than that which otherwise would have occurred without the support; and

(B) advise on the technological approaches that should be supported by the Administration to meet the technology deployment goals established by the Secretary pursuant to section 185.

(4) TERM.—

(A) IN GENERAL.—Members of the Advisory Council shall have 5-year staggered terms, as determined by the Secretary and the Administrator of the Administration.

(B) REAPPOINTMENT.—A member of the Advisory Council may be reappointed.

(5) COMPENSATION.—A member of the Advisory Council, who is not otherwise compensated as a Federal employee, shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Advisory Council.

(e) STAFF.—

(1) IN GENERAL.—The Administrator of the Administration, in consultation with the Board of Directors, may—

(A) appoint and terminate such officers, attorneys, employees, and agents as are necessary to carry out this subtitle; and

(B) vest those personnel with such powers and duties as the Administrator of the Administration may determine.

(2) DIRECT HIRE AUTHORITY.—

(A) IN GENERAL.—Notwithstanding section 3304 and sections 3309 through 3318 of title 5, United States Code, the Administrator of the Administration may, on a determination that there is a severe shortage of candidates or a critical hiring need for particular positions, recruit and directly appoint highly qualified critical personnel with specialized knowledge important to the function of the Administration into the competitive service.

(B) EXCEPTION.—The authority granted under subparagraph (A) shall not apply to positions in the excepted service or the Senior Executive Service.

(C) REQUIREMENTS.—In exercising the authority granted under subparagraph (A), the Administrator of the Administration shall ensure that any action taken by the Administrator of the Administration—

(i) is consistent with the merit principles of section 2301 of title 5, United States Code; and

(ii) complies with the public notice requirements of section 3327 of title 5, United States Code.

(D) TERMINATION OF EFFECTIVENESS.—The authority provided by this paragraph terminates effective on the date that is 2 years after the date of enactment of this Act.

(3) CRITICAL PAY AUTHORITY.—

(A) IN GENERAL.—Notwithstanding section 5377 of title 5, United States Code, and without regard to the provisions of that title governing appointments in the competitive service or the Senior Executive Service and chapters 51 and 53 of that title (relating to classification and pay rates), the Administrator of the Administration may establish, fix the compensation of, and appoint individuals to critical positions needed to carry out the functions of the Administration, if the Administrator of the Administration certifies that—

(i) the positions require expertise of an extremely high level in a financial, technical, or scientific field;

(ii) the Administration would not successfully accomplish an important mission without such an individual; and

(iii) exercise of the authority is necessary to recruit an individual who is exceptionally well qualified for the position.

(B) LIMITATIONS.—The authority granted under subparagraph (A) shall be subject to the following conditions:

(i) The number of critical positions authorized by subparagraph (A) may not exceed 20 at any 1 time in the Administration.

(ii) The term of an appointment under subparagraph (A) may not exceed 4 years.

(iii) An individual appointed under subparagraph (A) may not have been an Administration employee at any time during the 2-year period preceding the date of appointment.

(iv) Total annual compensation for any individual appointed under subparagraph (A) may not exceed the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code.

(v) An individual appointed under subparagraph (A) may not be considered to be an employee for purposes of subchapter II of chapter 75 of title 5, United States Code.

(C) NOTIFICATION.—Each year, the Administrator of the Administration shall submit to Congress a notification that lists each individual appointed under this paragraph.

SEC. 187. DIRECT SUPPORT.

(a) IN GENERAL.—The Administration may issue direct loans, letters of credit, and loan guarantees to deploy clean energy technologies if the Administrator of the Administration has determined that deployment of the technologies would benefit or be accelerated by the support.

(b) ELIGIBILITY CRITERIA.—In carrying out this section and awarding credit support to projects, the Administrator of the Administration shall account for—

(1) how the technology rates based on an evaluation methodology established by the Advisory Council;

(2) how the project fits with the goals established under section 185; and

(3) the potential for the applicant to successfully complete the project.

(c) RISK.—

(1) EXPECTED LOAN LOSS RESERVE.—The Administrator of the Administration shall establish an expected loan loss reserve to account for estimated losses attributable to activities under this section that is consistent with the purposes of—

(A) developing breakthrough technologies to the point at which technology risk is largely mitigated;

(B) achieving widespread deployment and advancing the commercial viability of clean energy technologies; and

(C) advancing the goals established under section 185.

(2) INITIAL EXPECTED LOAN LOSS RESERVE.—Until such time as the Administrator of the Administration determines sufficient data exist to establish an expected loan loss reserve that is appropriate, the Administrator of the Administration shall consider establishing an initial rate of 10 percent for the portfolio of investments under this subtitle.

(3) PORTFOLIO INVESTMENT APPROACH.—The Administration shall—

(A) use a portfolio investment approach to mitigate risk and diversify investments across technologies and ensure that no particular technology is provided more than 30 percent of the financial support available;

(B) to the maximum extent practicable and consistent with long-term self-sufficiency, weigh the portfolio of investments in projects to advance the goals established under section 185;

(C) consistent with the expected loan loss reserve established under this subsection, the purpose stated in section 182, and section 186(b)(2)(B), provide the maximum practicable percentage of support to promote breakthrough technologies; and

(D) give the highest priority to investments that promote technologies that will achieve the maximum greenhouse gas emission reductions within a reasonable period of time per dollar invested and the earliest reductions in greenhouse gas emissions.

(4) LOSS RATE REVIEW.—

(A) IN GENERAL.—The Board of Directors shall review on an annual basis the loss rates of the portfolio to determine the adequacy of the reserves.

(B) REPORT.—Not later than 90 days after the date of the initiation of the review, the Administrator of the Administration shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of the review and any recommended policy changes.

(5) FEDERAL COST SHARE.—A loan guarantee by the Administration shall not exceed an amount equal to 80 percent of the project cost of the facility that is the subject of the guarantee, as estimated at the time at which the guarantee is issued.

(d) APPLICATION REVIEW.—

(1) IN GENERAL.—To the maximum extent practicable and consistent with sound business practices, the Administration shall seek to consolidate reviews of applications for credit support under this subtitle such that final decisions on applications can generally be issued not later than 180 days after the date of submission of a completed application.

(2) ENVIRONMENTAL REVIEW.—In carrying out this subtitle, the Administration shall, to the maximum extent practicable—

(A) avoid duplicating efforts that have already been undertaken by other agencies (including State agencies acting under Federal programs); and

(B) with the advice of the Council on Environmental Quality and any other applicable agencies, use the administrative records of similar reviews conducted throughout the executive branch to develop the most expeditious review process practicable.

(e) WAGE RATE REQUIREMENTS.—

(1) IN GENERAL.—No credit support shall be issued under this section unless the borrower has provided to the Administrator of the Administration reasonable assurances that all laborers and mechanics employed by contractors and subcontractors in the performance of construction work financed in whole or in part by the Administration will be paid wages at rates not less than those prevailing on projects of a character similar to the contract work in the civil subdivision of the State in which the contract work is to be performed as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40, United States Code.

(2) LABOR STANDARDS.—With respect to the labor standards specified in this subsection, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

SEC. 188. FEDERAL CREDIT AUTHORITY.

(a) PAYMENTS OF LIABILITIES.—

(1) IN GENERAL.—Any payment made to discharge liabilities arising from agreements under this subtitle shall be paid out of the Fund or the associated credit account, as appropriate.

(2) SECURITY.—The full faith and credit of the United States is pledged to the payment of all obligations entered into by the Administration pursuant to this subtitle.

(b) FEES.—

(1) IN GENERAL.—Consistent with achieving the purpose stated in section 182, the Administrator of the Administration shall charge fees or collect compensation generally in accordance with commercial rates.

(2) AVAILABILITY OF FEES.—All fees collected by the Administration may be retained by the Administration and placed in the Fund and may remain available to the Administration, without further appropriation or fiscal year limitation, for use in carrying out the purpose stated in section 182.

(3) BREAKTHROUGH TECHNOLOGIES.—The Administration shall charge the minimum amount in fees or compensation practicable for breakthrough technologies, consistent with the long-term viability of the Administration, unless the Administration first determines that a higher charge will not impede the development of the technology.

(4) ALTERNATIVE FEE ARRANGEMENTS.—The Administration may use such alternative arrangements (such as profit participation, contingent fees, and other valuable contingent interests) as the Administration considers appropriate to compensate the Administration for the expenses of the Administration and the risk inherent in the support of the Administration.

(c) COST TRANSFER AUTHORITY.—Amounts collected by the Administration for the cost of a loan or loan guarantee shall be transferred by the Administration to the respective credit accounts.

SEC. 189. GENERAL PROVISIONS.

(a) IMMUNITY FROM IMPAIRMENT, LIMITATION, OR RESTRICTION.—

(1) IN GENERAL.—All rights and remedies of the Administration (including any rights and remedies of the Administration on, under, or with respect to any mortgage or any obligation secured by a mortgage) shall be immune from impairment, limitation, or restriction by or under—

(A) any law (other than a law enacted by Congress expressly in limitation of this paragraph) that becomes effective after the acquisition by the Administration of the subject or property on, under, or with respect to which the right or remedy arises or exists or would so arise or exist in the absence of the law; or

(B) any administrative or other action that becomes effective after the acquisition.

(2) STATE LAW.—The Administrator of the Administration may conduct the business of the Administration without regard to any qualification or law of any State relating to incorporation.

(b) USE OF OTHER AGENCIES.—With the consent of a department, establishment, or instrumentality (including any field office), the Administration may—

(1) use and act through any department, establishment, or instrumentality; and

(2) use, and pay compensation for, information, services, facilities, and personnel of the department, establishment, or instrumentality.

(c) PROCUREMENT.—The Administrator of the Administration shall be the senior procurement officer for the Administration for purposes of section 16(a) of the Office of Federal Procurement Policy Act (41 U.S.C. 414(a)).

(d) FINANCIAL MATTERS.—

(1) INVESTMENTS.—Funds of the Administration may be invested in such investments as the Board of Directors may prescribe.

(2) FISCAL AGENTS.—Any Federal Reserve bank or any bank as to which at the time of the designation of the bank by the Administrator of the Administration there is outstanding a designation by the Secretary of the Treasury as a general or other depository of public money, may be designated by the Administrator of the Administration as a depositary or custodian or as a fiscal or other agent of the Administration.

(e) JURISDICTION.—Notwithstanding section 1349 of title 28, United States Code, or any other provision of law—

(1) the Administration shall be considered a corporation covered by sections 1345 and 1442 of title 28, United States Code;

(2) all civil actions to which the Administration is a party shall be considered to arise under the laws of the United States, and the district courts of the United States shall have original jurisdiction of all such actions, without regard to amount or value; and

(3) any civil or other action, case or controversy in a court of a State, or in any court other than a district court of the United States, to which the Administration is a party may at any time before trial be removed by the Administration, without the giving of any bond or security and by following any procedure for removal of causes in effect at the time of the removal—

(A) to the district court of the United States for the district and division embracing the place in which the same is pending; or

(B) if there is no such district court, to the district court of the United States for the district in which the principal office of the Administration is located.

(f) PERIODIC REPORTS.—Not later than 1 year after commencement of operation of the Administration and at least biannually thereafter, the Administrator of the Administration shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that includes a description of—

(1) the technologies supported by activities of the Administration and how the activities advance the purpose stated in section 182; and

(2) the performance of the Administration on meeting the goals established under section 185.

(g) AUDITS BY THE COMPTROLLER GENERAL.—

(1) IN GENERAL.—The programs, activities, receipts, expenditures, and financial transactions of the Administration shall be subject to audit by the Comptroller General of the United States under such rules and regulations as may be prescribed by the Comptroller General.

(2) ACCESS.—The representatives of the Government Accountability Office shall—

(A) have access to the personnel and to all books, accounts, documents, records (including electronic records), reports, files, and all other papers, automated data, things, or property belonging to, under the control of, or in use by the Administration, or any agent, representative, attorney, advisor, or consultant retained by the Administration, and necessary to facilitate the audit;

(B) be afforded full facilities for verifying transactions with the balances or securities held by depositories, fiscal agents, and custodians;

(C) be authorized to obtain and duplicate any such books, accounts, documents, records, working papers, automated data and files, or other information relevant to the audit without cost to the Comptroller General; and

(D) have the right of access of the Comptroller General to such information pursuant to section 716(c) of title 31, United States Code.

(3) ASSISTANCE AND COST.—

(A) IN GENERAL.—For the purpose of conducting an audit under this subsection, the Comptroller General may, in the discretion of the Comptroller General, employ by contract, without regard to section 3709 of the Revised Statutes (41 U.S.C. 5), professional services of firms and organizations of certified public accountants for temporary periods or for special purposes.

(B) REIMBURSEMENT.—

(i) IN GENERAL.—On the request of the Comptroller General, the Administration shall reimburse the Government Accountability Office for the full cost of any audit conducted by the Comptroller General under this subsection.

(ii) CREDITING.—Such reimbursements shall—

(I) be credited to the appropriation account entitled "Salaries and Expenses, Government Accountability Office" at the time at which the payment is received; and

(II) remain available until expended.

(h) ANNUAL INDEPENDENT AUDITS.—

(1) IN GENERAL.—The Administrator of the Administration shall—

(A) have an annual independent audit made of the financial statements of the Administration by an independent public accountant in accordance with generally accepted auditing standards; and

(B) submit to the Secretary the results of the audit.

(2) CONTENT.—In conducting an audit under this subsection, the independent public accountant shall determine and report on whether the financial statements of the Administration—

(A) are presented fairly in accordance with generally accepted accounting principles; and

(B) comply with any disclosure requirements imposed under this subtitle.

(i) FINANCIAL REPORTS.—

(1) IN GENERAL.—The Administrator of the Administration shall submit to the Secretary annual and quarterly reports of the financial condition and operations of the Administration, which shall be in such form, contain such information, and be submitted on such dates as the Secretary shall require.

(2) CONTENTS OF ANNUAL REPORTS.—Each annual report shall include—

(A) financial statements prepared in accordance with generally accepted accounting principles;

(B) any supplemental information or alternative presentation that the Secretary may require; and

(C) an assessment (as of the end of the most recent fiscal year of the Administration), signed by the chief executive officer and chief accounting or financial officer of the Administration, of—

(i) the effectiveness of the internal control structure and procedures of the Administration; and

(ii) the compliance of the Administration with applicable safety and soundness laws.

(3) SPECIAL REPORTS.—The Secretary may require the Administrator of the Administration to submit other reports on the condition (including financial condition), management, activities, or operations of the Administration, as the Secretary considers appropriate.

(4) ACCURACY.—Each report of financial condition shall contain a declaration by the Administrator of the Administration or any other officer designated by the Board of Directors of the Administration to make the declaration, that the report is true and correct to the best of the knowledge and belief of the officer.

(5) AVAILABILITY OF REPORTS.—Reports required under this section shall be published and made publicly available as soon as is practicable after receipt by the Secretary.

(j) SCOPE AND TERMINATION OF AUTHORITY.—

(1) NEW OBLIGATIONS.—The Administrator of the Administration shall not initiate any new obligations under this subtitle on or after January 1, 2029.

(2) REVERSION TO SECRETARY.—The authorities and obligations of the Administration shall revert to the Secretary on January 1, 2029.

Subtitle J—Miscellaneous

SEC. 191. STUDY OF OCEAN RENEWABLE ENERGY AND TRANSMISSION PLANNING AND SITING.

(a) DEFINITIONS.—In this section:

(1) MARINE SPATIAL PLAN.—The term "marine spatial plan" means the analysis and allocation of ocean space for various uses to achieve ecological, economic, and social objectives, based on the principle of ecosystem-based management.

(2) MARINE SPATIAL PLANNING.—The term "marine spatial planning" means the process of developing a marine spatial plan.

(3) ECOSYSTEM-BASED MANAGEMENT.—The term "ecosystem-based management" means a management approach that ensures the future ecological and economic sustainability of natural resources by—

(A) accounting for all ecosystem interactions and direct, indirect, and cumulative impacts of human activities on the ecosystem;

(B) emphasizing protection of ecosystem structure, functions, patterns, and processes; and

(C) maintaining ecosystems in a healthy and resilient condition.

(4) OFFSHORE RENEWABLE ENERGY.—The term "offshore renewable energy" means energy generated from offshore wind or offshore hydrokinetic (wave, tidal, ocean current, and tidal-current) energy technologies.

(5) OFFSHORE RENEWABLE ENERGY FACILITY.—The term "offshore renewable energy facility" means a facility that generates offshore renewable energy or any offshore transmission line associated with such facility.

(b) STUDY.—

(1) IN GENERAL.—As soon as practicable after the date of enactment of this section, the Federal Energy Regulatory Commission, the Secretary of the Interior, and the National Oceanic and Atmospheric Administration, in consultation with the Council on Environmental Quality and, as appropriate, coastal States, regional organizations of coastal States, and relevant nongovernmental organizations, shall jointly conduct a study of the potential for marine spatial planning to facilitate the development of offshore renewable energy facilities in a manner that protects and maintains coastal and marine ecosystem health.

(2) REQUIREMENTS.—The study under paragraph (1) shall include—

(A) identification of the steps involved in regional marine spatial planning for the siting of offshore renewable energy facilities;

(B) a recommended approach for the development of regional marine spatial plans for the siting of offshore renewable energy facilities that provides for—

(i) the participation of relevant Federal agencies and State governments;

(ii) coordination, to the maximum extent practicable, with any marine spatial planning undertaken by States;

(iii) public input; and

(iv) the periodic revision of such plans as necessary to account for significant new information and ensure achievement of plan objectives;

(C) identification of required elements of such regional marine spatial plans, including rules that Federal agencies shall apply to applications for any authorizations required under existing Federal law to construct or operate offshore renewable energy facilities within areas covered by such plans;

(D) an assessment of the adequacy of existing data, including baseline environmental data, to support such marine spatial planning and identification of gaps in such data and the studies needed to fill such gaps;

(E) an assessment of the resources required to carry out such marine spatial planning;

(F) recommended mechanisms for the formal adoption and implementation of regional marine spatial plans for the development of offshore renewable energy facilities by relevant Federal agencies;

(G) identification of any additional authority relevant Federal agencies would need to adopt and implement regional marine spatial plans for the development of offshore renewable energy facilities; and

(H) such other recommendations as appropriate.

(3) REPORT.—Not later than 6 months after the date of enactment of this section, the Federal Energy Regulatory Commission, the Secretary of the Interior, and the National Oceanic and Atmospheric Administration shall jointly publish the findings and recommendations of the study conducted pursuant to this subsection and shall accept public comment for at least 30 days after such publication. Following consideration of any public comments, and not later than 8 months after the date of enactment of this section, the Federal Energy Regulatory Commission, the Secretary of the Interior, and the National Oceanic and Atmospheric Administration shall jointly submit to Congress and the Council on Environmental Quality the findings and recommendations of the study conducted pursuant to this subsection.

(c) ASSESSMENT OF REPORT.—

(1) IN GENERAL.—Not later than 4 months after the date of submission of the report required under subsection (b)(3), the Council on Environmental Quality shall assess the recommendations of such report, issue a written determination as to whether the recommended approach to marine spatial planning should be implemented, and transmit such written determination to the relevant Federal agencies and Congress.

(2) COORDINATION FOR RECOMMENDED APPROACH.—If the Council on Environmental Quality determines that the recommended approach to marine spatial planning should be implemented, the relevant Federal agencies shall implement such approach and complete the development of marine spatial plans pursuant to that approach no later than 18 months after the written determination re-

quired by paragraph (1), and the Council on Environmental Quality shall coordinate such implementation. At the time of the written determination required by paragraph (1), the Council on Environmental Quality shall notify Congress if the relevant Federal agencies lack authority to carry out any aspect of the recommended approach.

(3) ALTERNATIVE APPROACH.—If the Council on Environmental Quality determines that the recommended approach to marine spatial planning should not be implemented, the Council on Environmental Quality shall formulate an alternative approach and submit such alternative approach to the relevant Federal agencies and Congress at the time of the written determination required by paragraph (1).

(d) RELATIONSHIP TO EXISTING LAW.—Nothing in this section shall affect or be construed to affect any law, regulation, or memoranda of understanding governing the development of offshore renewable energy facilities in effect prior to the implementation of the recommended or alternative approach pursuant to subsection (c).

(e) AUTHORIZATION.—There are authorized to be appropriated such sums as may be necessary to carry out this section.

SEC. 192. CLEAN TECHNOLOGY BUSINESS COMPETITION GRANT PROGRAM.

(a) IN GENERAL.—The Secretary of Energy is authorized to provide grants to organizations to conduct business competitions that provide incentives, training, and mentorship to entrepreneurs and early stage start-up companies throughout the United States to meet high priority economic, environmental, and energy security goals in areas to include energy efficiency, renewable energy, air quality, water quality and conservation, transportation, smart grid, green building, and waste management. Such competitions shall have the purpose of accelerating the development and deployment of clean technology businesses and green jobs; stimulating green economic development; providing business training and mentoring to early stage clean technology companies; and strengthening the competitiveness of United States clean technology industry in world trade markets. Priority shall be given to business competitions that are private sector led, encourage regional and interregional cooperation, and can demonstrate market-driven practices and show the creation of cost-effective green jobs through an annual publication of competition activities and directory of companies.

(b) ELIGIBILITY.—An organization eligible for a grant under subsection (a) is—

(1) any organization described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from tax under section 501(a) of such Code; and

(2) any sponsored entity of an organization described in paragraph (1) that is operated as a nonprofit entity.

(c) PRIORITY.—In making grants under this section, the Secretary shall give priority to those organizations that can demonstrate broad funding support from private and other non-Federal funding sources to leverage Federal investment.

(d) AUTHORIZATION OF APPROPRIATIONS.—For the purpose of carrying out this section, there are authorized to be appropriated $20,000,000.

SEC. 193. NATIONAL BIOENERGY PARTNERSHIP.

(a) IN GENERAL.—The Secretary of Energy shall establish a National Bioenergy Partnership to provide coordination among programs of State governments, the Federal Government, and the private sector that support the institutional and physical infrastructure necessary to promote the deployment of sustainable biomass fuels and bioenergy technologies for the United States.

(b) PROGRAM.—The National Bioenergy Partnership shall consist of five regions, to be administered by the CONEG Policy Research Center, the Council of Great Lakes Governors, the Southern States Energy Board, the Western Governors Association, and the Pacific Regional Biomass Energy Partnership led by the Washington State University Energy Program.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for each of fiscal years 2010 through 2014 to carry out this section—

(1) $5,000,000, to be allocated among the 5 regions described in subsection (b) on the basis of the number of States in each region, for distribution among the member States of that region based on procedures developed by the member States of the region; and

(2) $2,500,000, to be allocated equally among the 5 regions described in subsection (b) for region-wide activities, including technical assistance and regional studies and coordination.

SEC. 194. OFFICE OF CONSUMER ADVOCACY.

(a) OFFICE.—

(1) ESTABLISHMENT.—There is an Office of Consumer Advocacy established within the Commission to serve as an advocate for the public interest.

(2) DIRECTOR.—The Office shall be headed by a Director to be appointed by the President, who is admitted to the Federal Bar, with experience in public utility proceedings, and by and with the advice and consent of the Senate.

(3) DUTIES.—The Office may—

(A) represent, and appeal on behalf of, energy customers on matters concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission—

(i) at hearings of the Commission;

(ii) in judicial proceedings in the courts of the United States; and

(iii) at hearings or proceedings of other Federal regulatory agencies and commissions;

(B) monitor and review energy customer complaints and grievances on matters concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission;

(C) investigate independently, or within the context of formal proceedings, the services provided by, the rates charged by, and the valuation of the properties of, public utilities and natural gas companies under the jurisdiction of the Commission;

(D) develop means, such as public dissemination of information, consultative services, and technical assistance, to ensure, to the maximum extent practicable, that the interests of energy consumers are adequately represented in the course of any hearing or proceeding described in subparagraph (A);

(E) collect data concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission; and

(F) prepare and issue reports and recommendations.

(4) COMPENSATION AND POWERS.—The Director may—

(A) employ and fix the compensation of such staff personnel as is deemed necessary; and

(B) procure temporary and intermittent services as needed.

(5) ACCESS TO INFORMATION.—Each department, agency, and instrumentality of the Federal Government is authorized and directed to furnish to the Director such reports and other information as he deems necessary to carry out his functions under this section.

(b) CONSUMER ADVOCACY ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—The Director shall establish an advisory committee to be known as Consumer Advocacy Advisory Committee (in this section referred to as the "Advisory Committee") to review rates, services, and disputes and to make recommendations to the Director.

(2) COMPOSITION.—The Director shall appoint 5 members to the Advisory Committee including—

(A) 2 individuals representing State Utility Consumer Advocates; and

(B) 1 individual, from a nongovernmental organization, representing consumers.

(3) MEETINGS.—The Advisory Committee shall meet at such frequency as may be required to carry out its duties.

(4) REPORTS.—The Director shall provide for publication of recommendations of the Advisory Committee on the public website established for the Office.

(5) DURATION.—Notwithstanding any other provision of law, the Advisory Committee shall continue in operation during the period in which the Office exists.

(6) APPLICATION OF FACA.—Except as otherwise specifically provided, the Advisory Committee shall be subject to the Federal Advisory Committee Act.

(c) DEFINITIONS.—

(1) COMMISSION.—The term "Commission" means the Federal Energy Regulatory Commission.

(2) ENERGY CUSTOMER.—The term "energy customer" means a residential customer or a small commercial customer that receives products or services from a public utility or natural gas company under the jurisdiction of the Commission.

(3) NATURAL GAS COMPANY.—The term "natural gas company" has the meaning given the term in section 2 of the Natural Gas Act (15 U.S.C. 717a), as modified by section 601(a) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3431(a)).

(4) OFFICE.—The term "Office" means the Office of Consumer Advocacy established by subsection (a)(1).

(5) PUBLIC UTILITY.—The term "public utility" has the meaning given the term in section 201(e) of the Federal Power Act (16 U.S.C. 824(e)).

(6) SMALL COMMERCIAL CUSTOMER.—The term "small commercial customer" means a commercial customer that has a peak demand of not more than 1,000 kilowatts per hour.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized such sums as necessary to carry out this section.

(e) SAVINGS CLAUSE.—Nothing in this section affects the rights or obligations of State Utility Consumer Advocates.

TITLE II—ENERGY EFFICIENCY

Subtitle A—Building Energy Efficiency Programs

SEC. 201. GREATER ENERGY EFFICIENCY IN BUILDING CODES.

Section 304 of the Energy Conservation and Production Act (42 U.S.C. 6833) is amended to read as follows:

"SEC. 304. GREATER ENERGY EFFICIENCY IN BUILDING CODES.

"(a) ENERGY EFFICIENCY TARGETS.—

"(1) IN GENERAL.—Except as provided in paragraph (2) or (3), the national building code energy efficiency target for the national average percentage improvement of a building's energy performance when built to a code meeting the target shall be—

"(A) effective on the date of enactment of the American Clean Energy and Security Act of 2009, 30 percent reduction in energy use relative to a comparable building constructed in compliance with the baseline code;

"(B) effective January 1, 2014, for residential buildings, and January 1, 2015, for commercial buildings, 50 percent reduction in energy use relative to the baseline code; and

"(C) effective January 1, 2017, for residential buildings, and January 1, 2018, for commercial buildings, and every 3 years thereafter, respectively, through January 1, 2029, and January 1, 2030, 5 percent additional reduction in energy use relative to the baseline code.

"(2) CONSENSUS-BASED CODES.—If on any effective date specified in paragraph (1)(A), (B), or (C) a successor code to the baseline codes provides for greater reduction in energy use than is required under paragraph (1), the overall percentage reduction in energy use provided by that successor code shall be the national building code energy efficiency target.

"(3) TARGETS ESTABLISHED BY SECRETARY.—The Secretary may by rule establish a national building code energy efficiency target for residential or commercial buildings achieving greater reductions in energy use than the targets prescribed in paragraph (1) or (2) if the Secretary determines that such greater reductions in energy use can be achieved with a code that is life cycle cost-justified and technically feasible. The Secretary may by rule establish a national building code energy efficiency target for residential or commercial buildings achieving a reduction in energy use that is greater than zero but less than the targets prescribed in paragraph (1) or (2) if the Secretary determines that such lesser target is the maximum reduction in energy use that can be achieved through a code that is life cycle cost-justified and technically feasible.

"(4) ADDITIONAL REDUCTIONS IN ENERGY USE.—Effective on January 1, 2033, and once every 3 years thereafter, the Secretary shall determine, after notice and opportunity for comment, whether further energy efficiency building code improvements for residential or commercial buildings, respectively, are life cycle cost-justified and technically feasible, and shall establish updated national building code energy efficiency targets that meet such criteria.

"(5) ZERO-NET-ENERGY BUILDINGS.—In setting targets under this subsection, the Secretary shall consider ways to support the deployment of distributed renewable energy technology, and shall seek to achieve the goal of zero-net-energy commercial buildings established in section 422 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17082).

"(6) BASELINE CODE.—For purposes of this section, the term 'baseline code' means—

"(A) for residential buildings, the 2006 International Energy Conservation Code (IECC) published by the International Code Council; and

"(B) for commercial buildings, the code published in ASHRAE Standard 90.1-2004.

"(7) CONSULTATION.—In establishing the targets required by this section, the Secretary shall consult with the Director of the National Institute of Standards and Technology.

"(b) NATIONAL ENERGY EFFICIENCY BUILDING CODES.—

"(1) REQUIREMENT.—

"(A) IN GENERAL.—There shall be established national energy efficiency building codes under this subsection, for residential and commercial buildings, sufficient to meet each of the national building code energy efficiency targets established under subsection (a), not later than the date that is one year after the deadline for establishment of each such target.

"(B) EXISTING CODE.—If the Secretary finds prior to the date one year after the deadline for establishing a target that one or more energy efficiency building codes published by a recognized consensus-based code development organization meet or exceed the established target, the Secretary shall select the code that meets the target with the highest efficiency in the most cost-effective manner, and such code shall be the national energy efficiency building code.

"(C) REQUIREMENT TO ESTABLISH CODE.—If the Secretary does not make a finding under subparagraph (B), the national energy efficiency building code shall be established by rule by the Secretary under paragraph (2).

"(2) ESTABLISHMENT BY SECRETARY.—

"(A) PROCEDURE.—In order to establish a national energy efficiency building code as required under paragraph (1)(C), the Secretary shall—

"(i) not later than six months prior to the effective date for each target, review existing and proposed codes published or under review by recognized consensus-based code development organizations;

"(ii) determine the percentage of energy efficiency improvements that are or would be achieved in such published or proposed code versions relative to the target;

"(iii) propose improvements to such published or proposed code versions sufficient to meet or exceed the target; and

"(iv) unless a finding is made under paragraph (1)(B) with respect to a code published by a recognized consensus-based code development organization, adopt a code that meets or exceeds the relevant national building code energy efficiency target by not later than one year after the effective date of such target.

"(B) CALCULATIONS.—Each code established by the Secretary under this paragraph shall be set at the maximum level the Secretary determines is life cycle cost-justified and technically feasible, in accordance with the following:

"(i) SAVINGS CALCULATIONS.—Calculations of energy savings shall take into account the typical lifetimes of different products, measures, and system configurations.

"(ii) COST-EFFECTIVENESS CALCULATIONS.—Calculations of life cycle cost-effectiveness shall be based on life cycle cost methods and procedures under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254), but shall incorporate to the extent feasible externalities such as impacts on climate change and on peak energy demand that are not already incorporated in assumed energy costs.

"(C) CONSIDERATIONS.—In developing a national energy efficiency building code under this paragraph, the Secretary shall consider—

"(i) for residential codes—

"(I) residential building standards published or proposed by ASHRAE;

"(II) residential building codes published or proposed in the International Energy Conservation Code (IECC);

"(III) data from the Residential Energy Services Network (RESNET) on compliance measures utilized by consumers to qualify for the residential energy efficiency tax credits established under the Energy Policy Act of 2005;

"(IV) data and information from the Department of Energy's Building America Program;

"(V) data and information from the Energy Star New Homes program;

"(VI) data and information from the New Building Institute and similar organizations; and

"(VII) standards for practices and materials to achieve cool roofs in residential buildings, taking into consideration reduced air conditioning energy use as a function of cool roofs, the potential reduc-

tion in global warming from increased solar reflectance from buildings, and cool roofs criteria in State and local building codes and in national and local voluntary programs; and

"(ii) for commercial codes—

"(I) commercial building standards proposed by ASHRAE;

"(II) commercial building codes proposed in the International Energy Conservation Code (IECC);

"(III) the Core Performance Criteria published by the New Buildings Institute;

"(IV) data and information developed by the Director of the Commercial High-Performance Green Building Office of the Department of Energy and any public-private partnerships established under that Office;

"(V) data and information from the Energy Star for Buildings program;

"(VI) data and information from the New Building Institute, RESNET, and similar organizations; and

"(VII) standards for practices and materials to achieve cool roofs in commercial buildings, taking into consideration reduced air conditioning energy use as a function of cool roofs, the potential reduction in global warming from increased solar reflectance from buildings, and cool roofs criteria in State and local building codes and in national and local voluntary programs.

"(D) CONSULTATION.—In establishing any national energy efficiency building code required by this section, the Secretary shall consult with the Director of the National Institute of Standards and Technology.

"(3) CONSENSUS STANDARD ASSISTANCE.—(A) To support the development of consensus standards that may provide the basis for national energy efficiency building codes, minimize duplication of effort, encourage progress through consensus, and facilitate the development of greater building efficiency, the Secretary shall provide assistance to recognized consensus-based code development organizations to develop, and where the relevant code has been adopted as the national code, disseminate consensus based energy efficiency building codes as provided in this paragraph.

"(B) Upon a finding by the Secretary that a code developed by such an organization meets a target established under subsection (a), the Secretary shall—

"(i) send notice of the Secretary's finding to all duly authorized or appointed State and local code agencies; and

"(ii) provide sufficient support to such an organization to make the code available on the Internet, or to accomplish distribution of such code to all such State and local code agencies at no cost to the State and local code agencies.

"(C) The Secretary may contract with such an organization and with other organizations with expertise on codes to provide training for State and local code officials and building inspectors in the implementation and enforcement of such code.

"(D) The Secretary may provide grants and other support to such an organization to—

"(i) develop appropriate refinements to such code; and

"(ii) support analysis of options for improvements in the code to meet the next scheduled target.

"(4) CODE DEVELOPED BY SECRETARY.—If the Secretary establishes a national energy efficiency building code under paragraph (2), the Secretary shall—

"(A) to the extent that such code is based on a prior code developed by a recognized consensus-based code development organization, negotiate and provide appropriate compensation to such organization for the use of the code materials that remain in the code established by the Secretary; and

"(B) disseminate the national energy efficiency building codes to State and local code officials, and support training and provide guidance and technical assistance to such officials as appropriate.

"(c) STATE ADOPTION OF ENERGY EFFICIENCY BUILDING CODES.—

"(1) REQUIREMENT.—Not later than 1 year after a national energy efficiency building code for residential or commercial buildings is established or revised under subsection (b), each State—

"(A) shall—

"(i) review and update the provisions of its building code regarding energy efficiency to meet or exceed the target met in the new national code, to achieve equivalent or greater energy savings;

"(ii) document, where local governments establish building codes, that local governments representing not less than 80 percent of the State's urban population have adopted the new national code, or have adopted local codes that meet or exceed the target met in the new national code to achieve equivalent or greater energy savings; or

"(iii) adopt the new national code; and

"(B) shall provide a certification to the Secretary demonstrating that energy efficiency building code provisions that apply throughout the State meet or exceed the target met by the new national code, to achieve equivalent or greater energy savings.

"(2) CONFIRMATION.—

"(A) REQUIREMENT.—Not later than 90 days after a State certification is provided under paragraph (1)(B), the Secretary shall determine whether the State's energy efficiency building code provisions meet the requirements of this subsection.

"(B) ACCEPTANCE BY SECRETARY.—If the Secretary determines under subparagraph (A) that the State's energy efficiency building code or codes meet the requirements of this subsection, the Secretary shall accept the certification.

"(C) DEFICIENCY NOTICE.—If the Secretary determines under subparagraph (A) that the State's building code or codes do not meet the requirements of this subsection, the Secretary shall identify the deficiency in meeting the national building code energy efficiency target, and, to the extent possible, indicate areas where further improvement in the State's code provisions would allow the deficiency to be eliminated.

"(D) REVISION OF CODE AND RECERTIFICATION.—A State may revise its code or codes and submit a recertification under paragraph (1)(B) to the Secretary at any time.

"(3) COMPLIANT CODE.—For the purposes of meeting the target described in subsection (a)(1)(A) for residential buildings, a State that adopts the code represented in California's Title 24-2009 by the date two years after the date of enactment of the American Clean Energy and Security Act of 2009 shall be considered to have met the requirements of this subsection for the applicable period.

"(d) APPLICATION OF NATIONAL CODE TO STATE AND LOCAL JURISDICTIONS.—

"(1) IN GENERAL.—Upon the expiration of 1 year after a national energy efficiency building code is established under subsection (b), in any jurisdiction where the State has not had a certification relating to that code accepted by the Secretary under subsection (c)(2)(B), and the local government has not had a certification relating to that code accepted by the Secretary under subsection (e)(6)(B), the national code shall become the applicable energy efficiency building code for such jurisdiction.

"(2) STATE LEGISLATIVE ADOPTION.—In a State in which the relevant building energy code is adopted legislatively, the deadline in paragraph (1) shall not be earlier than 1 year after the first day that the legislature meets following establishment of a national energy efficiency building code.

"(3) VIOLATIONS.—Violations of this section shall be defined as follows:

"(A) If the building is subject to the requirements of a State energy efficiency building code with respect to which a certification has been accepted by the Secretary under subsection (c)(2)(B) or a local energy efficiency building code with respect to which a certification has been accepted by the Secretary pursuant to subsection (e)(6)(B), a violation shall be determined pursuant to the relevant provisions of the State or local code.

"(B) If the building is subject to the requirements of a national energy efficiency building code adopted under subsection (c)(1)(A)(i) or made applicable under paragraph (1) of this subsection, a violation shall be defined by the Secretary pursuant to subsection (g).

"(e) STATE ENFORCEMENT OF ENERGY EFFICIENCY BUILDING CODES.—

"(1) IN GENERAL.—Each State, or where applicable under State law each local government, shall implement and enforce applicable State or local codes with respect to which a certification was accepted by the Secretary under subsection (c)(2)(B) or paragraph (6)(B) of this subsection, or the national energy efficiency building codes, as provided in this subsection.

"(2) STATE CERTIFICATION.—Not later than 2 years after the date of a certification under subsection (c)(1) or the establishment of a national energy efficiency building code under subsection (b), each State shall certify that it has—

"(A) achieved compliance with—

"(i) State codes, or, as provided under State law, local codes, with respect to which a certification was accepted by the Secretary under subsection (c)(2)(B); or

"(ii) the national energy efficiency building code, as applicable; or

"(B) for any certification submitted within 7 years after the date of enactment of the American Clean Energy and Security Act of 2009, made significant progress toward achieving such compliance.

"(3) ACHIEVING COMPLIANCE.—A State shall be considered to achieve compliance with a code described in paragraph (2)(A) if at least 90 percent of new and substantially renovated building space in that State in the preceding year upon inspection meets the requirements of the code. A certification under paragraph (2) shall include documentation of the rate of compliance based on—

"(A) independent inspections of a random sample of the new and substantially renovated buildings covered by the code in the preceding year; or

"(B) an alternative method that yields an accurate measure of compliance as determined by the Secretary.

"(4) SIGNIFICANT PROGRESS.—A State shall be considered to have made significant progress toward achieving compliance with a code described in paragraph (2)(A) if—

"(A) the State has developed a plan, including for hiring enforcement staff, providing training, providing manuals and checklists, and instituting enforcement programs, designed to achieve full compliance within 5 years after the date of the adoption of the code;

"(B) the State is taking significant, timely, and measurable action to implement that plan;

"(C) the State has not reduced its expenditures for code enforcement; and

"(D) at least 50 percent of new and substantially renovated building space in the State in the preceding year upon inspection meets the requirements of the code.

"(5) SECRETARY'S DETERMINATION.—Not later than 90 days after a State certification under paragraph (2), the Secretary shall determine whether the State has demonstrated that it has complied with the requirements of this subsection, including accurate measurement of compliance, or that it has made significant progress toward compliance. If such determination is positive, the Secretary shall accept the certification. If the determination is negative, the Secretary shall identify the areas of deficiency.

"(6) OUT OF COMPLIANCE.—

"(A) IN GENERAL.—Any State for which the Secretary has not accepted a certification under paragraph (5) by a deadline established under this subsection is out of compliance with this section.

"(B) LOCAL COMPLIANCE.—In any State that is out of compliance with this section as provided in subparagraph (A), a local government may be in compliance with this section by meeting all certification requirements applicable to the State.

"(C) NONCOMPLIANCE.—Any State that is not in compliance with this section, as provided in subparagraph (A), shall, until the State regains such compliance, be ineligible to receive—

"(i) emission allowances pursuant to subsection (h)(1);

"(ii) Federal funding in excess of that State's share (calculated according to the allocation formula in section 363 of the Energy Policy and Conservation Act (42 U.S.C. 6323)) of $125,000,000 each year; and

"(iii) for—

"(I) the first year for which the State is out of compliance, 25 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009;

"(II) the second year for which the State is out of compliance, 50 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009;

"(III) the third year for which the State is out of compliance, 75 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009; and

"(IV) the fourth and subsequent years for which the State is out of compliance, 100 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009.

"(f) FEDERAL ENFORCEMENT.—Where a State fails and local governments in that State also fail to enforce the applicable State or national energy efficiency building codes, the Secretary shall enforce such codes, as follows:

"(1) The Secretary shall establish, by rule, within 2 years after the date of enactment of the American Clean Energy and Security Act of 2009, an energy efficiency building code enforcement capability.

"(2) Such enforcement capability shall be designed to achieve 90 percent compliance with such code in any State within 1 year after the date of the Secretary's determination that such State is out of compliance with this section.

"(3) The Secretary may set and collect reasonable inspection fees to cover the costs of inspections required for such enforcement. Revenue from fees collected shall be available to the Secretary to carry out the requirements of this section upon appropriation.

"(g) ENFORCEMENT PROCEDURES.—The Secretary shall propose and, not later than three years after the date of enactment of the American Clean Energy and Security Act of 2009, shall determine and adopt by rule what shall constitute violations of the energy efficiency building codes to be enforced pursuant to this section, and the penalties that shall apply to violators. To the extent that the Secretary determines that the authority to adopt and impose such violations and penalties by rule requires further statutory authority, the Secretary shall report such determination to Congress as soon as such determination is made, but not later than one year after the enactment of the American Clean Energy and Security Act of 2009.

"(h) FEDERAL SUPPORT.—

"(1) ALLOWANCE ALLOCATION FOR STATE COMPLIANCE.—For each vintage year from 2012 through 2050, the Administrator shall distribute allowances allocated pursuant to section 782(g)(2) of the Clean Air Act to the SEED Account for each State that the Secretary identifies as a State from which he has accepted the State's certification under subsection (e)(5) for compliance with the then current national energy efficiency building codes. Such allowances shall be distributed according to a formula established by the Secretary as follows:

"(A) One-fifth in an equal amount to each of the 50 States and United States territories.

"(B) Two-fifths as a function of the relative energy use in all buildings in each State in the most recent year for which data is available.

"(C) Two-fifths based on the number of building construction starts recorded in each State, the number of new building permits applied for in each State, or other relevant available data indicating building activity in each State, in the judgment of the Secretary, for the year prior to the year of the distribution.

"(2) ALLOWANCE ALLOCATION TO LOCAL GOVERNMENTS.—In the instance that the Secretary certifies that one or more local governments are in compliance with this section pursuant to subsection (e)(6)(B), the Administrator shall provide to each such local government the portion of the emission allowances that would have been provided to that State as a function of the population of that locality as a proportion of the population of that State as a whole.

"(3) UNALLOCATED ALLOWANCES.—To the extent that allowances are not provided to State or local governments for lack of certification in any year, those allowances shall be added to the amount provided to those States and local governments that are certified as eligible in that year.

"(4) USE OF ALLOWANCES.—Each State or each local government shall use such emission allowances as it receives pursuant to this section exclusively for the purposes of this section, including covering a reasonable portion of the costs of the development, adoption, implementation, and enforcement of a State or local energy efficiency building code with respect to which a certification is accepted by the Secretary under subsection (c)(2)(B) or subsection (e)(6)(B), or the national energy efficiency building code. In a State where local governments provide building code enforcement, a minimum of 50 percent of the allowance value received pursuant to this section shall be distributed to local governments as a function of the relative populations of such localities.

"(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy $100,000,000 for each of fiscal years 2010 through 2020 and such sums thereafter as may be necessary to support the purposes of this section.

"(j) ANNUAL REPORTS BY SECRETARY.—The Secretary shall annually submit to Congress, and publish in the Federal Register, a report on—

"(1) the status of national building energy efficiency codes;

"(2) the status of energy efficiency building code adoption and compliance in the States;

"(3) the implementation of this section; and

"(4) impacts of past action under this section, and potential impacts of further action, on lifetime energy use by buildings, including resulting energy and cost savings.".

SEC. 202. BUILDING RETROFIT PROGRAM.

(a) DEFINITIONS.—For purposes of this section:

(1) NONRESIDENTIAL BUILDING.—The term "nonresidential building" means a building with a primary use or purpose other than residential housing, including commercial offices, schools, academic and other public and private institutions, nonprofit organizations, hospitals, hotels, and houses of worship. Such buildings shall include mixed-use properties used for both residential and nonresidential purposes in which more than half of building floor space is nonresidential.

(2) PERFORMANCE-BASED BUILDING RETROFIT PROGRAM.—The term "performance-based building retrofit program" means a program that determines building energy efficiency success based on actual measured savings after a retrofit is complete, as evidenced by energy invoices or evaluation protocols.

(3) PRESCRIPTIVE BUILDING RETROFIT PROGRAM.—The term "prescriptive building retrofit program" means a program that projects building retrofit energy efficiency success based on the known effectiveness of measures prescribed to be included in a retrofit.

(4) RECOMMISSIONING; RETROCOMMISSIONING.—The terms "recommissioning" and "retrocommissioning" have the meaning given those terms in section 543(f)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(f)(1)).

(5) RESIDENTIAL BUILDING.—The term "residential building" means a building whose primary use is residential. Such buildings shall include single-family homes (both attached and detached), owner-occupied units in larger buildings with their own dedicated space-conditioning systems, and buildings used for both residential and nonresidential purposes in which more than half of building floor space is residential.

(6) STATE ENERGY PROGRAM.—The term "State Energy Program" means the program under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.).

(b) ESTABLISHMENT.—The Administrator shall develop and implement, in consultation with the Secretary of Energy, standards for a national energy and environmental building retrofit policy for single-family and multifamily residences. The Administrator shall develop and implement, in consultation with the Secretary of Energy and the Director of Commercial High-Performance Green Buildings, standards for a national energy and environmental building retrofit policy for nonresidential buildings. The programs to implement the residential and nonresidential policies based on the standards developed under this section shall together be known as the Retrofit for Energy and Environmental Performance (REEP) program.

(c) PURPOSE.—The purpose of the REEP program is to facilitate the retrofitting of existing buildings across the United States to achieve maximum cost-effective energy efficiency improvements and significant improvements in water use and other environmental attributes.

(d) FEDERAL ADMINISTRATION.—

(1) EXISTING PROGRAMS.— In creating and operating the REEP program—

(A) the Administrator shall make appropriate use of existing programs, including the Energy Star program and in particular the Environmental Protection Agency Energy Star for Buildings program; and

(B) the Secretary of Energy shall make appropriate use of existing programs, including delegating authority to the Director of Commercial High-Performance Green Buildings appointed under section 421 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17081), who shall designate and provide funding to support a high-performance green building partnership consortium pursuant to subsection (f) of such section to support efforts under this section.

(2) CONSULTATION AND COORDINATION.—The Administrator and the Secretary of Energy shall consult with and coordinate with the Secretary of Housing and Urban Development in carrying out the REEP program.

(3) ASSISTANCE.—The Administrator and the Secretary of Energy shall provide consultation and assistance to State and local agencies for the establishment of revolving loan funds, loan guarantees, or other forms of financial assistance under this section.

(e) STATE AND LOCAL ADMINISTRATION.—

(1) DESIGNATION AND DELEGATION.—A State may designate one or more agencies or entities, including those regulated by the State, to carry out the purposes of this section, but shall designate one entity or individual as the principal point

of contact for the Administrator regarding the REEP Program. The designated State agency, agencies, or entities may delegate performance of appropriate elements of the REEP program, upon their request and subject to State law, to counties, municipalities, appropriate public agencies, and other divisions of local government, as well as to entities regulated by the State. In making any such designation or delegation, a State shall give priority to entities that administer existing comprehensive retrofit programs, including those under the supervision of State utility regulators. States shall maintain responsibility for meeting the standards and requirements of the REEP program. In any State that elects not to administer the REEP program, a unit of local government may propose to do so within its jurisdiction, and if the Administrator finds that such local government is capable of administering the program, the Administrator may provide allowances to that local government, prorated according to the population of the local jurisdiction relative to the population of the State, for purposes of the REEP program.

(2) EMPLOYMENT.—States and local government entities may administer a REEP program in a manner that authorizes public or regulated investor-owned utilities, building auditors and inspectors, contractors, nonprofit organizations, for-profit companies, and other entities to perform audits and retrofit services under this section. A State may provide incentives for retrofits without direct participation by the State or its agents, so long as the resulting savings are measured and verified. A State or local administrator of a REEP program shall seek to ensure that sufficient qualified entities are available to support retrofit activities so that building owners have a competitive choice among qualified auditors, raters, contractors, and providers of services related to retrofits. Nothing in this section is intended to preclude or preempt the right of a building owner to choose the specific providers of retrofit services to engage for a retrofit project in that owner's building.

(3) EQUAL INCENTIVES FOR EQUAL IMPROVEMENT.—In general, the States should strive to offer the same levels of incentives for retrofits that meet the same efficiency improvement goals, regardless of whether the State, its agency or entity, or the building owner has conducted the retrofit achieving the improvement, provided the improvement is measured and verified.

(f) ELEMENTS OF REEP PROGRAM.—The Administrator, in consultation with the Secretary of Energy, shall establish goals, guidelines, practices, and standards for accomplishing the purpose stated in subsection (c), and shall annually review and, as appropriate, revise such goals, guidelines, practices, and standards. The program under this section shall include the following:

(1) Residential Energy Services Network (RESNET) or Building Performance Institute (BPI) analyst certification of residential building energy and environment auditors, inspectors, and raters, or an equivalent certification system as determined by the Administrator.

(2) BPI certification or licensing by States of residential building energy and environmental retrofit contractors, or an equivalent certification or licensing system as determined by the Administrator.

(3) Provision of BPI, RESNET, or other appropriate information on equipment and procedures, as determined by the Administrator, that contractors can use to test the energy and environmental efficiency of buildings effectively (such as infrared photography and pressurized testing, and tests for water use and indoor air quality).

(4) Provision of clear and effective materials to describe the testing and retrofit processes for typical buildings.

(5) Guidelines for offering and managing prescriptive building retrofit programs and performance-based building retrofit programs for residential and nonresidential buildings.

(6) Guidelines for applying recommissioning and retrocommissioning principles to improve a building's operations and maintenance procedures.

(7) A requirement that building retrofits conducted pursuant to a REEP program utilize, especially in all air-conditioned buildings, roofing materials with high solar energy reflectance, unless inappropriate due to green roof management, solar energy production, or for other reasons identified by the Administrator, in order to reduce energy consumption within the building, increase the albedo of the building's roof, and decrease the heat island effect in the area of the building.

(8) Determination of energy savings in a performance-based building retrofit program through—

(A) for residential buildings, comparison of before and after retrofit scores on the Home Energy Rating System (HERS) Index, where the final score is produced by an objective third party;

(B) for nonresidential buildings, Environmental Protection Agency Portfolio Manager benchmarks; or

(C) for either residential or nonresidential buildings, use of an Administrator-approved simulation program by a contractor with the appropriate certification, subject to appropriate software standards and verification of at least 15 percent of all work done, or such other percentage as the Administrator may determine.

(9) Guidelines for utilizing the Energy Star Portfolio Manager, the Home Energy Rating System (HERS) rating system, Home Performance with Energy Star program approvals, and any other tools associated with the retrofit program.

(10) Requirements and guidelines for post-retrofit inspection and confirmation of work and energy savings.

(11) Detailed descriptions of funding options for the benefit of State and local governments, along with model forms, accounting aids, agreements, and guides to best practices.

(12) Guidance on opportunities for—

(A) rating or certifying retrofitted buildings as Energy Star buildings, or as green buildings under a recognized green building rating system;

(B) assigning Home Energy Rating System (HERS) or similar ratings; and

(C) completing any applicable building performance labels.

(13) Sample materials for publicizing the program to building owners, including public service announcements and advertisements.

(14) Processes for tracking the numbers and locations of buildings retrofitted under the REEP program, with information on projected and actual savings of energy and its value over time.

(g) REQUIREMENTS.—As a condition of receiving allowances for the REEP program pursuant to this Act, a State or qualifying local government shall—

(1) adopt the standards for training, certification of contractors, certification of buildings, and post-retrofit inspection as developed by the Administrator for residential and nonresidential buildings, respectively, except as necessary to match local conditions, needs, efficiency opportunities, or other local factors, or to accord with State laws or regulations, and then only after the Administrator approves such a variance; and

(2) establish fiscal controls and accounting procedures (which conform to generally accepted government accounting principles) sufficient to ensure proper accounting during appropriate accounting periods for payments received and disbursements, and for fund balances.

The Administrator shall conduct or require each State to have such independent financial audits of REEP-related funding as the Administrator considers necessary or appropriate to carry out the purposes of this section.

(h) OPTIONS TO SUPPORT REEP PROGRAM.—The emission allowances provided pursuant to this Act to the States' SEED Accounts shall support the implementation through State REEP programs of alternate means of creating incentives for, or reducing financial barriers to, improved energy and environmental performance in buildings, consistent with this section, including—

(1) implementing prescriptive building retrofit programs and performance-based building retrofit programs;

(2) providing credit enhancement, interest rate subsidies, loan guarantees, or other credit support;

(3) providing initial capital for public revolving fund financing of retrofits, with repayments by beneficiary building owners over time through their tax payments, calibrated to create net positive cash flow to the building owner;

(4) providing funds to support utility-operated retrofit programs with repayments over time through utility rates, calibrated to create net positive cash flow to the building owner, and transferable from one building owner to the next with the building's utility services;

(5) providing funds to local government programs to provide REEP services and financial assistance; and

(6) other means proposed by State and local agencies, subject to the approval of the Administrator.

(i) SUPPORT FOR PROGRAM.—

(1) USE OF ALLOWANCES.—Direct Federal support for the REEP program is provided through the emission allowances allocated to the States' SEED Accounts pursuant to section 132 of this Act. To the extent that a State provides allowances to local governments within the State to implement elements of the REEP Program, that shall be deemed a distribution of such allowances to units of local government pursuant to subsection (c)(1) of that section.

(2) INITIAL AWARD LIMITS.—Except as provided in paragraph (3), State and local REEP programs may make per-building direct expenditures for retrofit improvements, or their equivalent in indirect or other forms of financial support, from funds derived from the sale of allowances received directly from the Administrator in amounts not to exceed the following:

(A) RESIDENTIAL BUILDING PROGRAM.—

(i) AWARDS.—For residential buildings—

(I) support for a free or low-cost detailed building energy audit that prescribes, as part of a energy-reducing measures sufficient to achieve at least a 20 percent reduction in energy use, by providing an incentive equal to the documented cost of such audit, but not more than $200, in addition to any earned by achieving a 20 percent or greater efficiency improvement;

(II) a total of $1,000 for a combination of measures, prescribed in an audit conducted under subclause (I), designed to reduce energy consumption by more than 10 percent, and $2,000 for a combination of measures prescribed in such an audit, designed to reduce energy consumption by more than 20 percent;

(III) $3,000 for demonstrated savings of 20 percent, pursuant to a performance-based building retrofit program; and

(IV) $1,000 for each additional 5 percentage points of energy savings achieved beyond savings for which funding is provided under subclause (II) or (III).

Funding shall not be provided under clauses (II) and (III) for the same energy savings.

(ii) MAXIMUM PERCENTAGE.—Awards under clause (i) shall not exceed 50 percent of retrofit costs for each building. For buildings with multiple residential units, awards under clause (i) shall not be greater than 50 percent of the total cost of retrofitting the building, prorated among individual residential units on the basis of relative costs of the retrofit.

(iii) ADDITIONAL AWARDS.—Additional awards may be provided for purposes of increasing energy efficiency, for buildings achieving at least 20 percent energy savings using funding provided under clause (i), in the form of grants of not more than $600 for measures projected or measured (using an appropriate method approved by the Administrator) to achieve at least 35 percent potable water savings through equipment or systems with an estimated service life of not less than seven years, and not more than an additional $20 may be provided for each additional one percent of such savings, up to a maximum total grant of $1,200.

(B) NONRESIDENTIAL BUILDING PROGRAM.—

(i) AWARDS.—For nonresidential buildings—

(I) support for a free or low-cost detailed building energy audit that prescribes, as part of a energy-reducing measures sufficient to achieve at least a 20 percent reduction in energy use, by providing an incentive equal to the documented cost of such audit, but not more than $500, in addition to any award earned by achieving a 20 percent or greater efficiency improvement;

(II) $0.15 per square foot of retrofit area for demonstrated energy use reductions from 20 percent to 30 percent;

(III) $0.75 per square foot for demonstrated energy use reductions from 30 percent to 40 percent;

(IV) $1.60 per square foot for demonstrated energy use reductions from 40 percent to 50 percent; and

(V) $2.50 per square foot for demonstrated energy use reductions exceeding 50 percent.

(ii) MAXIMUM PERCENTAGE.—Amounts provided under subclauses (II) through (V) of clause (i) combined shall not exceed 50 percent of the total retrofit cost of a building. In nonresidential buildings with multiple units, such awards shall be prorated among individual units on the basis of relative costs of the retrofit.

(iii) ADDITIONAL AWARDS.—Additional awards may be provided, for buildings achieving at least 20 percent energy savings using funding provided under clause (i), as follows:

(I) WATER.—For purposes of increasing energy efficiency, grants may be made for whole building potable water use reduction (using an appropriate method approved by the Secretary of Energy) for up to 50 percent of the total retrofit cost, including amounts up to—

(aa) $24.00 per thousand gallons per year of potable water savings of 40 percent or more;

(bb) $27.00 per thousand gallons per year of potable water savings of 50 percent or more; and

(cc) $30.00 per thousand gallons per year of potable water savings of 60 percent or more.

(II) ENVIRONMENTAL IMPROVEMENTS.—Additional awards of up to $1,000 may be granted for the inclusion of other environmental attributes that the Secretary, in consultation with the Administrator, identifies as contributing to energy efficiency. Such attributes may include, but are not limited to waste diversion and the use of environmentally preferable materials (including salvaged, renewable, or recycled materials, and materials with no or low-VOC content). The Administrator may recommend that States develop such standards as are necessary to account for local or regional conditions that may affect the feasibility or availability of identified resources and attributes.

(iv) INDOOR AIR QUALITY MINIMUM.—Nonresidential buildings receiving incentives under this section must satisfy at a minimum the most recent version of ASHRAE Standard 62.1 for ventilation, or the equivalent as determined by the Administrator. A State may issue a waiver from this requirement to a building project on a showing that such compliance is infeasible due to the physical constraints of the building's existing ventilation system, or such other limitations as may be specified by the Administrator.

(C) HISTORIC BUILDINGS.—Notwithstanding subparagraphs (A) and (B), a building in or eligible for the National Register of Historic Places shall be eligible for awards under this paragraph in amounts up to 120 percent of the amounts set forth in subparagraphs (A) and (B).

(D) SUPPLEMENTAL SUPPORT.—State and local governments may supplement the per-building expenditures under this paragraph with funding from other sources.

(3) ADJUSTMENT.—The Administrator may adjust the specific dollar limits funded by the sale of allowances pursuant to paragraph (2) in years subsequent to the second year after the date of enactment of this Act, and every 2 years thereafter, as the Administrator determines necessary to achieve optimum cost-effectiveness and to maximize incentives to achieve energy efficiency within the total building award amounts provided in that paragraph, and shall publish and hold constant such revised limits for at least 2 years.

(j) REPORT TO CONGRESS.—The Administrator shall conduct an annual assessment of the achievements of the REEP program in each State, shall prepare an annual report of such achievements and any recommendations for program modifications, and shall provide such report to Congress at the end of each fiscal year during which funding or other resources were made available to the States for the REEP Program.

(k) OTHER SOURCES OF FEDERAL SUPPORT.—

(1) ADDITIONAL STATE ENERGY PROGRAM FUNDS.—Any Federal funding provided to a State Energy Program that is not required to be expended for a different federally designated purpose may be used to support a REEP program.

(2) PROGRAM ADMINISTRATION.—State Energy Offices or designated State agencies may expend up to 10 percent of available allowance value provided under this section for program administration.

(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for the purposes of this section, for each of fiscal years 2010, 2011, 2012, and 2013—

(A) $50,000,000 to the Administrator for program administration costs; and

(B) $20,000,000 to the Secretary of Energy for program administration costs.

SEC. 203. ENERGY EFFICIENT MANUFACTURED HOMES.

(a) DEFINITIONS.—In this section:

(1) MANUFACTURED HOME.—The term "manufactured home" has the meaning given such term in section 603 of the National Manufactured Housing Construction and Safety Standards Act of 1974 (42 U.S.C. 5402).

(2) ENERGY STAR QUALIFIED MANUFACTURED HOME.—The term "Energy Star qualified manufactured home" means a manufactured home that has been designed, produced, and installed in accordance with Energy Star's guidelines by an Energy Star certified plant.

(b) PURPOSE.—The purpose of this section is to assist low-income households residing in manufactured homes constructed prior to 1976 to save energy and energy expenditures by providing support toward the purchase of new Energy Star qualified manufactured homes.

(c) STATE IMPLEMENTATION OF PROGRAM.—

(1) MANUFACTURED HOME REPLACEMENT PROGRAM.—Any State may provide to the owner of a manufactured home constructed prior to 1976 a rebate to use toward the purchase of a new Energy Star qualified manufactured home pursuant to this section.

(2) USE OF ALLOWANCES.—Direct Federal support for the program established in this section is provided through the emission allowances allocated to the States' SEED Accounts pursuant to section 132 of this Act. To the extent that a State provides allowances to local governments within the State to implement this program, that shall be deemed a distribution of such allowances to units of local government pursuant to subsection (c)(1) of that section.

(3) REBATES.—

(A) PRIMARY RESIDENCE REQUIREMENT.—A rebate described under paragraph (1) may only be made to an owner of a manufactured home constructed prior to 1976 that is used on a year-round basis as a primary residence.

(B) DISMANTLING AND REPLACEMENT.—A rebate described under paragraph (1) may be made only if the manufactured home constructed prior to 1976 will be—

(i) rendered unusable for human habitation (including appropriate recycling); and

(ii) replaced, in the same general location, as determined by the applicable State agency, with an Energy Star qualified manufactured home.

(C) SINGLE REBATE.—A rebate described under paragraph (1) may not be provided to any owner of a manufactured home constructed prior to 1976 that was or is a member of a household for which any other member of the household was provided a rebate pursuant to this section.

(D) ELIGIBLE HOUSEHOLDS.—To be eligible to receive a rebate described under paragraph (1), an owner of a manufactured home constructed prior to 1976 shall demonstrate to the applicable State agency that the total income of all members the owner's household does not exceed 200 percent of the Federal poverty level for income in the applicable area.

(E) ADVANCE AVAILABILITY.—A rebate may be provided under this section in a manner to facilitate the purchase of a new Energy Star qualified manufactured home.

(4) REBATE LIMITATION.—Rebates provided by States under this section shall not exceed $7,500 per manufactured home from any value derived from the use of emission allowances provided to the State pursuant to section 132.

(5) USE OF STATE FUNDS.—A State providing rebates under this section may supplement the amount of such rebates under paragraph (4) by any additional amount is from State funds and other sources, including private donations or grants from charitable organizations.

(6) COORDINATION WITH SIMILAR PROGRAMS.—

(A) STATE PROGRAMS.—A State conducting an existing program that has the purpose of replacing manufactured homes constructed prior to 1976 with Energy Star qualified manufactured homes, may use allowance value provided under section 782 of the Clean Air Act to support such a program, provided such funding does not exceed the rebate limitation amount under paragraph (4).

(B) FEDERAL PROGRAMS.—The Secretary of Energy shall coordinate with and seek to achieve the purpose of this section through similar Federal programs including—

(i) the Weatherization Assistance Program under part A of title IV of the Energy Conservation and Production Act (42 U.S.C. 6861 et seq.); and

(ii) the program under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.).

(C) COORDINATION WITH OTHER STATE AGENCIES.—A State agency using allowance value to administer the program under this section may coordinate its efforts, and share funds for administration, with other State agencies involved in low-income housing programs.

(7) ADMINISTRATIVE EXPENSES.—A State using allowance value under this section may expend not more than 10 percent of such value for administrative expenses related to this program.

SEC. 204. BUILDING ENERGY PERFORMANCE LABELING PROGRAM.

(a) ESTABLISHMENT.—

(1) PURPOSE.—The Administrator shall establish a building energy performance labeling program with broad applicability to the residential and commercial markets to enable and encourage knowledge about building energy performance by owners and occupants and to inform efforts to reduce energy consumption nationwide.

(2) COMPONENTS.—In developing such program, the Administrator shall—

(A) consider existing programs, such as Environmental Protection Agency's Energy Star program, the Home Energy Rating System (HERS) Index, and programs at the Department of Energy;

(B) support the development of model performance labels for residential and commercial buildings; and

(C) utilize incentives and other means to spur use of energy performance labeling of public and private sector buildings nationwide.

(b) DATA ASSESSMENT FOR BUILDING ENERGY PERFORMANCE.—

(1) INITIAL REPORT.—Not later than 90 days after the date of enactment of this Act, the Administrator shall provide to Congress, as well as to the Secretary of Energy and the Office of Management and Budget, a report identifying—

(A) all principal building types for which statistically significant energy performance data exists to serve as the basis of measurement protocols and labeling requirements for achieved building energy performance; and

(B) those building types for which additional data are required to enable the development of such protocols and requirements.

(2) ADDITIONAL REPORTS.—Additional updated reports shall be provided under this subsection as often as The Administrator considers practicable, but not less than every 2 years.

(c) BUILDING DATA ACQUISITION.—

(1) RESOURCE REQUIREMENTS.—For all principal building types identified under subsection (b), the Secretary of Energy, not later than 90 days after a report by the Administrator under subsection (b), shall provide to Congress, the Administrator, and the Office of Management and Budget a statement of additional resources needed, if any, to fully develop the relevant data, as well as the anticipated timeline for data development.

(2) CONSULTATION.—The Secretary of Energy shall consult with the Administrator concerning the Administrator's ability to use data series for these additional building types to support the achieved performance component in the labeling program.

(3) IMPROVEMENTS TO BUILDING ENERGY CONSUMPTION DATABASES.—

(A) COMMERCIAL DATABASE.—The Secretary of Energy shall support improvements to the Commercial Buildings Energy Consumption Survey (CBECS) as authorized by section 205(k) of the Department of Energy Organization Act (42 U.S.C. 7135(k))—

(i) to enable complete and robust data for the actual energy performance of principal building types currently covered by survey;

(ii) to cover additional building types as identified by the Administrator under subsection (b)(1)(B), to enable the development of achieved performance measurement protocols are developed for at least 90 percent of all major commercial building types within 5 years after the date of enactment of this Act; and

(iii) to include third-party audits of random data samplings to ensure the quality and accuracy of survey information.

(B) RESIDENTIAL DATABASES.—The Administrator, in consultation with the Energy Information Administration and the Secretary of Energy, shall support improvements to the Residential Energy Consumption Survey (RECS) as authorized by section 205(k) of the Department of Energy Organization Act (42 U.S.C. 7135(k)), or such other residential energy performance databases as the Administrator considers appropriate, to aid the development of achieved performance measurement protocols for residential building energy use for at least 90 percent of the residential market within 5 years after the date of enactment of this Act.

(C) CONSULTATION.—The Secretary of Energy and the Administrator shall consult with public, private, and nonprofit sector representatives from the building industry and real estate industry to assist in the evaluation and improvement of building energy performance databases and labeling programs.

(d) IDENTIFICATION OF MEASUREMENT PROTOCOLS FOR ACHIEVED PERFORMANCE.—

(1) PROPOSED PROTOCOLS AND REQUIREMENTS.—At the earliest practicable date, but not later than 1 year after identifying a building type under subsection (b)(1)(A), the Administrator shall propose a measurement protocol for that building type and a requirement detailing how to use that protocol in completing applicable commercial or residential performance labels created pursuant to this section.

(2) FINAL RULE.—After providing for notice and comment, the Administrator shall publish a final rule containing a measurement protocol and the corresponding requirements for applying that protocol. Such a rule—

(A) shall define the minimum period for measurement of energy use by buildings of that type and other details for determining achieved performance, to include leased buildings or parts thereof;

(B) shall identify necessary data collection and record retention requirements; and

(C) may specify transition rules and exemptions for classes of buildings within the building type.

(e) PROCEDURES FOR EVALUATING DESIGNED PERFORMANCE.—The Administrator shall develop protocols for evaluating the designed performance of individual building types. The Administrator may conduct such feasibility studies and demonstration projects as are necessary to evaluate the sufficiency of proposed protocols for designed performance.

(f) CREATION OF BUILDING ENERGY PERFORMANCE LABELING PROGRAM.—

(1) MODEL LABEL.—Not later than 1 year after the date of enactment of this Act, the Administrator shall propose a model building energy label that provides a format—

(A) to display achieved performance and designed performance data;

(B) that may be tailored for residential and commercial buildings, and for single-occupancy and multitenanted buildings; and

(C) to display other appropriate elements identified during the development of measurement protocols under subsections (d) and (e).

(2) INCLUSIONS.—Nothing in this section shall require the inclusion on such a label of designed performance data where impracticable or not cost effective, or to preclude the display of both achieved performance and designed performance data for a particular building where both such measures are available, practicable, and cost effective.

(3) EXISTING PROGRAMS.—In developing the model label, the Administrator shall consider existing programs, including—

(A) the Environmental Protection Agency's Energy Star Portfolio Manager program and the California HERS II Program Custom Approach for the achieved performance component of the label;

(B) the Home Energy Rating System (HERS) Index system for the designed performance component of the label; and

(C) other Federal and State programs, including the Department of Energy's related programs on building technologies and those of the Federal Energy Management Program.

(4) FINAL RULE.—After providing for notice and comment, the Administrator shall publish a final rule containing the label applicable to covered building types.

(g) DEMONSTRATION PROJECTS FOR LABELING PROGRAM.—

(1) IN GENERAL.—The Administrator shall conduct building energy performance labeling demonstration projects for different building types—

(A) to ensure the sufficiency of the current Commercial Buildings Energy Consumption Survey and other data to serve as the basis for new measurement protocols for the achieved performance component of the building energy performance labeling program;

(B) to inform the development of measurement protocols for building types not currently covered by the Commercial Buildings Energy Consumption Survey; and

(C) to identify any additional information that needs to be developed to ensure effective use of the model label.

(2) PARTICIPATION.—Such demonstration projects shall include participation of—

(A) buildings from diverse geographical and climate regions;

(B) buildings in both urban and rural areas;

(C) single-family residential buildings;

(D) multihousing residential buildings with more than 50 units, including at least one project that provides affordable housing to individuals of diverse incomes;

(E) single-occupant commercial buildings larger than 30,000 square feet;

(F) multitenanted commercial buildings larger than 50,000 square feet; and

(G) buildings from both the public and private sectors.

(3) PRIORITY.—Priority in the selection of demonstration projects shall be given to projects that facilitate large-scale implementation of the labeling program for samples of buildings across neighborhoods, geographic regions, cities, or States.

(4) FINDINGS.—The Administrator shall report any findings from demonstration projects under this subsection, including an identification of any areas of needed data improvement, to the Department of Energy's Energy Information Administration and Building Technologies Program.

(5) COORDINATION.—The Administrator and the Secretary of Energy shall coordinate demonstration projects undertaken pursuant to this subsection with those undertaken as part of the Zero-Net-Energy Commercial Buildings Initiative adopted under section 422 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17082).

(h) IMPLEMENTATION OF LABELING PROGRAM.—

(1) IN GENERAL.—The Administrator, in consultation with the Secretary of Energy, shall work with all State Energy Offices established pursuant to part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) or other State authorities as necessary for the purpose of implementing the labeling program established under this section for commercial and residential buildings.

(2) OUTREACH TO LOCAL AUTHORITIES.—The Administrator shall, acting in consultation and coordination with the respective States, encourage use of the labeling program by counties and other localities to broaden access to information about building energy use, for example, through disclosure of building label contents in tax, title, and other records those localities maintain. For this purpose, the Administrator shall develop an electronic version of the label and information that can be readily transmitted and read in widely-available computer programs but is protected from unauthorized manipulation.

(3) MEANS OF IMPLEMENTATION.—In adopting the model labeling program established under this section, a State shall seek to ensure that labeled information be made accessible to the public in a manner so that owners, lenders, tenants, occupants, or other relevant parties can utilize it. Such accessibility may be accomplished through—

(A) preparation, and public disclosure of the label through filing with tax and title records at the time of—

(i) a building audit conducted with support from Federal or State funds;

(ii) a building energy-efficiency retrofit conducted in response to such an audit;

(iii) a final inspection of major renovations or additions made to a building in accordance with a building permit issued by a local government entity;

(iv) a sale that is recorded for title and tax purposes consistent with paragraph (8);

(v) a new lien recorded on the property for more than a set percentage of the assessed value of the property, if that lien reflects public financial assistance for energy-related improvements to that building; or

(vi) a change in ownership or operation of the building for purposes of utility billing; or

(B) other appropriate means.

(4) STATE IMPLEMENTATION OF PROGRAM.—

(A) ELIGIBILITY.—A State may become eligible to utilize allowance value to implement this program by—

(i) adopting by statute or regulation a requirement that buildings be assessed and labeled, consistent with the labeling requirements of the program established under this section; or

(ii) adopting a plan to implement a model labeling program consistent with this section within one year of enactment of this Act, including the establishment of that program within 3 years after the date of enactment of this Act, and demonstrating continuous progress under that plan.

(B) USE OF ALLOWANCES.—Direct Federal support for the program established in this section is provided through the emission allowances allocated to the States' SEED Accounts pursuant to section 132 of this Act. To the extent that a State provides allowances to local governments within the State to implement this program, that shall be deemed a distribution of

such allowances to units of local government pursuant to subsection (c)(1) of that section.

(5) GUIDANCE.—The Administrator may create or identify model programs and resources to provide guidance to offer to States and localities for creating labeling programs consistent with the model program established under this section.

(6) PROGRESS REPORT.—The Administrator, in consultation with the Secretary of Energy, shall provide a progress report to Congress not later than 3 years after the date of enactment of this Act that—

(A) evaluates the effectiveness of efforts to advance use of the model labeling program by States and localities;

(B) recommends any legislative changes necessary to broaden the use of the model labeling program; and

(C) identifies any changes to broaden the use of the model labeling program that the Administrator has made or intends to make that do not require additional legislative authority.

(7) STATE INFORMATION.—The Administrator may require States to report to the Administrator information that the Administrator requires to provide the report required under paragraph (6).

(8) PREVENTION OF DISRUPTION OF SALES TRANSACTIONS.—No State shall implement a new labeling program pursuant to this section in a manner that requires the labeling of a building to occur after a contract has been executed for the sale of that building and before the sales transaction is completed.

(i) IMPLEMENTATION OF LABELING PROGRAM IN FEDERAL BUILDINGS.—

(1) USE OF LABELING PROGRAM.—The Secretary of Energy and the Administrator shall use the labeling program established under this section to evaluate energy performance in the facilities of the Department of Energy and the Environmental Protection Agency, respectively, to the extent practicable, and shall encourage and support implementation efforts in other Federal agencies.

(2) ANNUAL PROGRESS REPORT.—The Secretary of Energy and Administrator shall provide an annual progress report to Congress and the Office of Management and Budget detailing efforts to implement this subsection, as well as any best practices or needed resources identified as a result of such efforts.

(j) PUBLIC OUTREACH.—The Secretary of Energy and the Administrator, in consultation with nonprofit and industry stakeholders with specialized expertise, and in conjunction with other energy efficiency public awareness efforts, shall establish a business and consumer education program to increase awareness about the importance of building energy efficiency and to facilitate widespread use of the labeling program established under this section.

(k) DEFINITIONS.—In this section:

(1) BUILDING TYPE.—The term "building type" means a grouping of buildings as identified by their principal building activities, or as grouped by their use, including office buildings, laboratories, libraries, data centers, retail establishments, hotels, warehouses, and educational buildings.

(2) MEASUREMENT PROTOCOL.—The term "measurement protocol" means the methodology, prescribed by the Administrator, for defining a benchmark for building energy performance for a specific building type and for measuring that performance against the benchmark.

(3) ACHIEVED PERFORMANCE.—The term "achieved performance" means the actual energy consumption of a building as compared to a baseline building of the same type and size, determined by actual consumption data normalized for appropriate variables.

(4) DESIGNED PERFORMANCE.—The term "designed performance" means the energy consumption performance a building would achieve if operated consistent with its design intent for building energy use, utilizing a standardized set of operational conditions informed by data collected or confirmed during an energy audit.

(l) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated—

(1) to the Administrator $50,000,000 for implementation of this section for each fiscal year from 2010 through 2020; and

(2) to the Secretary of Energy $20,000,000 for implementation of this section for fiscal year 2010 and $10,000,000 for fiscal years 2011 through 2020.

SEC. 205. TREE PLANTING PROGRAMS.

(a) FINDINGS.—The Congress finds that—

(1) the utility sector is the largest single source of greenhouse gas emissions in the United States today, producing approximately one-third of the country's emissions;

(2) heating and cooling homes accounts for nearly 60 percent of residential electricity usage in the United States;

(3) shade trees planted in strategic locations can reduce residential cooling costs by as much as 30 percent;

(4) shade trees have significant clean-air benefits associated with them;

(5) every 100 healthy large trees removes about 300 pounds of air pollution (including particulate matter and ozone) and about 15 tons of carbon dioxide from the air each year;

(6) tree cover on private property and on newly-developed land has declined since the 1970s, even while emissions from transportation and industry have been rising; and

(7) in over a dozen test cities across the United States, increasing urban tree cover has generated between two and five dollars in savings for every dollar invested in such tree planting.

(b) DEFINITIONS.—As used in this section:

(1) The term "Secretary" refers to the Secretary of Energy.

(2) The term "retail power provider" means any entity authorized under applicable State or Federal law to generate, distribute, or provide retail electricity, natural gas, or fuel oil service.

(3) The term "tree-planting organization" means any nonprofit or not-for-profit group which exists, in whole or in part, to—

(A) expand urban and residential tree cover;

(B) distribute trees for planting;

(C) increase awareness of the environmental and energy-related benefits of trees;

(D) educate the public about proper tree planting, care, and maintenance strategies; or

(E) carry out any combination of the foregoing activities.

(4) The term "tree-siting guidelines" means a comprehensive list of science-based measurements outlining the species and minimum distance required between trees planted pursuant to this section, in addition to the minimum required distance to be maintained between such trees and—

(A) building foundations;

(B) air conditioning units;

(C) driveways and walkways;

(D) property fences;

(E) preexisting utility infrastructure;

(F) septic systems;

(G) swimming pools; and

(H) other infrastructure as deemed appropriate.

(5) The terms "small office", "small office buildings", and "small office settings" means nonresidential buildings or structures zoned for business purposes that are 20,000 square feet or less in total area.

(c) PURPOSES.—The purpose of this section is to establish a grant program to assist retail power providers with the establishment and operation of targeted tree-planting programs in residential and small office settings, for the following purposes:

(1) Reducing the peak-load demand for electricity from residences and small office buildings during the summer months through direct shading of buildings provided by strategically planted trees.

(2) Reducing wintertime demand for energy from residences and small office buildings by blocking cold winds from reaching such structures, which lowers interior temperatures and drives heating demand.

(3) Protecting public health by removing harmful pollution from the air.

(4) Utilizing the natural photosynthetic and transpiration process of trees to lower ambient temperatures and absorb carbon dioxide, thus mitigating the effects of climate change.

(5) Lowering electric bills for residential and small office ratepayers by limiting electricity consumption without reducing benefits.

(6) Relieving financial and demand pressure on retail power providers that stems from large peak-load energy demand.

(7) Protecting water quality and public health by reducing stormwater runoff and keeping harmful pollutants from entering waterways.

(8) Ensuring that trees are planted in locations that limit the amount of public money needed to maintain public and electric infrastructure.

(d) GENERAL AUTHORITY.—

(1) ASSISTANCE.—The Secretary is authorized to provide financial, technical, and related assistance to retail power providers to assist with the establishment

of new, or continued operation of existing, targeted tree-planting programs for residences and small office buildings.

(2) PUBLIC RECOGNITION INITIATIVE.—In carrying out the authority provided under this section, the Secretary shall also create a national public recognition initiative to encourage participation in tree-planting programs by retail power providers.

(3) ELIGIBILITY.—Only those programs which utilize targeted, strategic tree-siting guidelines to plant trees in relation to building location, sunlight, and prevailing wind direction shall be eligible for assistance under this section.

(4) REQUIREMENTS.—In order to qualify for assistance under this section, a tree-planting program shall meet each of the following requirements:

(A) The program shall provide free or discounted shade-providing or wind-reducing trees to residential and small office consumers interested in lowering their home energy costs.

(B) The program shall optimize the electricity-consumption reduction benefit of each tree by planting in strategic locations around a given residence or small office.

(C) The program shall either—

(i) provide maximum amounts of shade during summer intervals when residences and small offices are exposed to the most sun intensity; or

(ii) provide maximum amounts of wind protection during fall and winter intervals when residences and small offices are exposed to the most wind intensity.

(D) The program shall use the best available science to create tree siting guidelines which dictate where the optimum tree species are best planted in locations that achieve maximum reductions in consumer energy demand while causing the least disruption to public infrastructure, considering overhead and underground facilities.

(E) The program shall receive certification from the Secretary that it is designed to achieve the goals set forth in subparagraphs (A) through (D). In designating criteria for such certification, the Secretary shall collaborate with the United States Forest Service's Urban and Community Forestry Program to ensure that certification requirements are consistent with such above goals.

(5) NEW PROGRAM FUNDING SHARE.—The Secretary shall ensure that no less than 30 percent of the funds made available under this section are distributed to retail power providers which—

(A) have not previously established or operated qualified tree-planting programs; or

(B) are operating qualified tree-planting programs which were established no more than three years prior to the date of enactment of this section.

(e) AGREEMENTS BETWEEN ELECTRICITY PROVIDERS AND TREE-PLANTING ORGANIZATIONS.—

(1) GRANT AUTHORIZATION.—In providing assistance under this section, the Secretary is authorized to award grants only to retail power providers that have entered into binding legal agreements with nonprofit tree-planting organizations.

(2) CONDITIONS OF AGREEMENT.—Those agreements between retail power providers and tree-planting organizations shall set forth conditions under which nonprofit tree-planting organizations shall provide targeted tree-planting programs which may require these organizations to—

(A) participate in local technical advisory committees responsible for drafting general tree-siting guidelines and choosing the most effective species of trees to plant in given locations;

(B) coordinate volunteer recruitment to assist with the physical act of planting trees in residential locations;

(C) undertake public awareness campaigns to educate local residents about the benefits, cost savings, and availability of free shade trees;

(D) establish education and information campaigns to encourage recipients to maintain their shade trees over the long term;

(E) serve as the point of contact for existing and potential residential participants who have questions or concerns regarding the tree-planting program;

(F) require tree recipients to sign agreements committing to voluntary stewardship and care of provided trees;

(G) monitor and report on the survival, growth, overall health, and estimated energy savings of provided trees up until the end of their establishment period which shall be no less than five years; and

(H) ensure that trees planted near existing power lines will not interfere with energized electricity distribution lines when mature, and that no new trees will be planted under or adjacent to high-voltage electric transmission lines without prior consultation with the applicable retail power provider receiving assistance under this section.

(3) LACK OF NONPROFIT ORGANIZATION.—If qualified nonprofit or not-for-profit tree planting organizations do not exist or operate within areas served by retail power providers applying for assistance under this section, the requirements of this section shall apply to binding legal agreements entered into by such retail power providers and one of the following entities:

(A) Local municipal governments with jurisdiction over the urban or suburban forest.

(B) The State Forester for the State in which the tree planting program will operate.

(C) The United States Forest Service's Urban and Community Forestry representative for the State in which the tree-planting program will operate.

(D) A landscaping services company that is—

(i) identified in consultation with a national or State nonprofit or not-for-profit tree-planting organization;

(ii) licensed to operate in the State in which the tree-planting program will operate; and

(iii) a business as defined by the United States Census Bureau's 2007 North American Industry Classification System Code 561730.

(f) TECHNICAL ADVISORY COMMITTEES.—

(1) DESCRIPTION.—In order to qualify for assistance under this section, the retail power provider shall establish and consult with a local technical advisory committee which shall provide advice and consultation to the program, and may—

(A) design and adopt an approved plant list that emphasizes the use of hardy, noninvasive tree species and, where geographically appropriate, the use of native, or site-adapted, or low water-use shade trees;

(B) design and adopt planting, installation, and maintenance specifications and create a process for inspection and quality control;

(C) ensure that tree recipients are educated to care for and maintain their trees over the long term;

(D) help the public become more engaged and educated in the planting and care of shade trees;

(E) prioritize which sites receive trees, giving preference to locations with the most potential for energy conservation and secondary preference to areas where the average annual income is below the regional median; and

(F) assist with monitoring and collection of data on tree health, tree survival, and energy conservation benefits generated under this section.

(2) COMPENSATION.—Individuals serving on local technical advisory committees shall not receive compensation for their service.

(3) COMPOSITION.—Local technical advisory committees shall be composed of representatives from public, private, and nongovernmental agencies with expertise in demand-side energy efficiency management, urban forestry, or arboriculture, and shall be composed of the following:

(A) Up to 4 persons, but no less than one person, representing the retail power provider receiving assistance under this section.

(B) Up to 4 persons, but no less than one person, representing the local tree-planting organization which will partner with the retail power provider to carry out this section.

(C) Up to 3 persons representing local nonprofit conservation or environmental organizations. Preference shall be given to those entities which are organized under section 501(c)(3) of the Internal Revenue Code of 1986, and which have demonstrated expertise engaging the public in energy conservation, energy efficiency, or green building practices or a combination thereof, such that no single organization is represented by more than one individual under this paragraph.

(D) Up to 2 persons representing a local affordable housing agency, affordable housing builder, or community development corporation.

(E) Up to 3, but no less than one, persons representing local city or county government for each municipality where a shade tree-planting program will take place; at least one of these representatives shall be the city or county forester, city or county arborist, or functional equivalent.

(F) Up to one person representing the local government agency responsible for management of roads, sewers, and infrastructure, including but

not limited to public works departments, transportation agencies, or equivalents.

(G) Up to 3 persons representing the nursery and landscaping industry.

(H) Up to 3 persons representing the research community or academia with expertise in natural resources or energy management issues.

(4) CHAIRPERSON.—Each local technical advisory committee shall elect a chairperson to preside over Committee meetings, act as a liaison to governmental and other outside entities, and direct the general operation of the committee; only committee representatives from paragraph (3)(A) or paragraph (3)(B) of this subsection shall be eligible to act as local technical advisory committee chairpersons.

(5) CREDENTIALS.—At least one of the members of each local technical advisory committee shall be certified with one or more of the following credentials: International Society of Arboriculture; Certified Arborist, ISA; Certified Arborist Municipal Specialist, ISA; Certified Arborist Utility Specialist, ISA; Board Certified Master Arborist; or Registered Landscape Architect recommended by the American Society of Landscape Architects.

(g) COST-SHARE PROGRAM.—

(1) FEDERAL SHARE.—The Federal share of support for projects funded under this section shall not exceed 50 percent of the cost of such project and shall be provided on a matching basis.

(2) NON-FEDERAL SHARE.—The non-Federal share of such costs may be paid or contributed by any governmental or nongovernmental entity other than from funds derived directly or indirectly from an agency or instrumentality of the United States.

(h) RULEMAKING.—

(1) RULEMAKING PERIOD.—The Secretary shall be authorized to solicit comments and initiate a rulemaking period that shall last no more than 6 months after the date of enactment of this section.

(2) COMPETITIVE GRANT RULE.—At the conclusion of the rulemaking period under paragraph (1), the Secretary shall promulgate a rule governing a public, competitive grants process through which retail power providers may apply for Federal support under this section.

(i) NONDUPLICITY.—Nothing in this section shall be construed to supersede, duplicate, cancel, or negate the programs or authorities provided under section 9 of the Cooperative Forestry Assistance Act of 1978 (92 Stat. 369; Public Law 95–313; 16 U.S.C. 2105).

(j) AUTHORIZATION OF APPROPRIATIONS.—There are hereby authorized to be appropriated such sums as may be necessary for the implementation of this section.

SEC. 206. ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.

Section 453(c)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17112(c)(1)) is amended by inserting "but not later than 2 years after the date of enactment of this Act" after "described in subsection (b)".

Subtitle B—Lighting and Appliance Energy Efficiency Programs

SEC. 211. LIGHTING EFFICIENCY STANDARDS.

(a) OUTDOOR LIGHTING.—

(1) DEFINITIONS.—

(A) Section 340(1) of the Energy Policy and Conservation Act (42 U.S.C. 6311(1)) is amended by striking subparagraph (L) and inserting the following:

"(L) Outdoor luminaires.

"(M) Outdoor high light output lamps.

"(N) Any other type of industrial equipment which the Secretary classifies as covered equipment under section 341(b).".

(B) Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended as adding at the end the following:

"(25) The term 'luminaire' means a complete lighting unit consisting of one or more light sources and ballast(s), together with parts designed to distribute the light, to position and protect such lamps, and to connect such light sources to the power supply.

"(26) The term 'outdoor luminaire' means a luminaire that is listed as suitable for wet locations pursuant to Underwriters Laboratories Inc. standard UL 1598 and is labeled as 'Suitable for Wet Locations' consistent with section 410.4(A)

of the National Electrical Code 2005, or is designed for roadway illumination and meets the requirements of Addendum A for IESNA TM-15-07: Backlight, Uplight, and Glare (BUG) Ratings, except for—

"(A) luminaires designed for outdoor video display images that cannot be used in general lighting applications;

"(B) portable luminaires designed for use at construction sites;

"(C) luminaires designed for continuous immersion in swimming pools and other water features;

"(D) seasonal luminaires incorporating solely individual lamps rated at 10 watts or less;

"(E) luminaires designed to be used in emergency conditions that incorporate a means of charging a battery and a device to switch the power supply to emergency lighting loads automatically upon failure of the normal power supply;

"(F) components used for repair of installed luminaries and that meet the requirements of section 342(h);

"(G) a luminaire utilizing an electrode-less fluorescent lamp as the light source;

"(H) decorative gas lighting systems;

"(I) luminaires designed explicitly for lighting for theatrical purposes, including performance, stage, film production, and video production;

"(J) luminaires designed as theme elements in theme/amusement parks and that cannot be used in most general lighting applications;

"(K) luminaires designed explicitly for vehicular roadway tunnels designed to comply with ANSI/IESNA RP-22-05;

"(L) luminaires designed explicitly for hazardous locations meeting UL Standard 844;

"(M) searchlights;

"(N) luminaires that are designed to be recessed into a building, and that cannot be used in most general lighting applications;

"(O) a luminaire rated only for residential applications utilizing a light source or sources regulated under the amendments made by section 321 of the Energy Independence and Security Act of 2007 and with a light output no greater than 2,600 lumens;

"(P) a residential pole-mounted luminaire that is not rated for commercial use utilizing a light source or sources meeting the efficiency requirements of section 231 of the Energy Independence and Security Act of 2007 and mounted on a post or pole not taller than 10.5 feet above ground and with a light output not greater than 2,600 lumens;

"(Q) a residential fixture with E12 (Candelabra) bases that is rated for not more than 300 watts total; or

"(R) a residential fixture with medium screw bases that is rated for not more than 145 watts.

"(27) The term 'outdoor high light outputlamp' means a lamp that—

"(A) has a rated lumen output not less than 2601 lumens;

"(B) is capable of being operated at a voltage not less than 110 volts and not greater than 300 volts, or driven at a constant current of 6.6 amperes;

"(C) is not a Parabolic Aluminized Reflector lamp; and

"(D) is not a J-type double-ended (T-3) halogen quartz lamp, utilizing R-7S bases, that is manufactured before January 1, 2015.

"(28) The term 'outdoor lighting control' means a device incorporated in a luminaire that receives a signal, from either a sensor (such as an occupancy sensor, motion sensor, or daylight sensor) or an input signal (including analog or digital signals communicated through wired or wireless technology), and can adjust the light level according to the signal.".

(2) STANDARDS.— Section 342 of the Energy Policy and Conservation Act (42 U.S.C. 6313) is amended by adding at the end the following:

"(g) OUTDOOR LUMINAIRES.—

"(1) Each outdoor luminaire manufactured on or after January 1, 2011, shall—

"(A) have an initial luminaire efficacy of at least 50 lumens per watt; and

"(B) be designed to use a light source with a lumen maintenance, calculated as mean rated lumens divided by initial lumens, of at least 0.6.

"(2) Each outdoor luminaire manufactured on or after January 1, 2013, shall—

"(A) have an initial luminaire efficacy of at least 70 lumens per watt; and

"(B) be designed to use a light source with a lumen maintenance, calculated as mean rated lumens divided by initial lumens, of at least 0.6.

"(3) Each outdoor luminaire manufactured on or after January 1, 2015, shall—

"(A) have an initial luminaire efficacy of at least 80 lumens per watt; and

"(B) be designed to use a light source with a lumen maintenance, calculated as mean rated lumens divided by initial lumens, of at least 0.65.

"(4) In addition to the requirements of paragraphs (1) through (3), each outdoor luminaire manufactured on or after January 1, 2011, shall have the capability of producing at least two different light levels, including 100 percent and 60 percent of full lamp output as tested with the maximum rated lamp per UL1598 or the manufacturer's maximum specified for the luminaire under test.

"(5)(A) Not later than January 1, 2017, the Secretary shall issue a final rule amending the applicable standards established in paragraphs (3) and (4) if technologically feasible and economically justified.

"(B) A final rule issued under subparagraph (A) shall establish efficiency standards at the maximum level that is technically feasible and economically justified, as provided in subsections (o) and (p) of section 325. The Secretary may also, in such rulemaking, amend or discontinue the product exclusions listed in section 340(26)(A) through (P), or amend the lumen maintenance requirements in paragraph (3) if the Secretary determines that such amendments are consistent with the purposes of this Act.

"(C) If the Secretary issues a final rule under subparagraph (A) establishing amended standards, the final rule shall provide that the amended standards apply to products manufactured on or after January 1, 2020, or one year after the date on which the final amended standard is published, whichever is later.

"(h) OUTDOOR HIGH LIGHT OUTPUT LAMPS.—Each outdoor high light output lamp manufactured on or after January 1, 2012, shall have a lighting efficiency of at least 45 lumens per watt.".

(3) TEST PROCEDURES.— Section 343(a) of the Energy Policy and Conservation Act (42 U.S.C. 6314(a)) is amended by adding at the end the following:

"(10) OUTDOOR LIGHTING.—

"(A) With respect to outdoor luminaires and outdoor high light output lamps, the test procedures shall be based upon the test procedures specified in illuminating engineering society procedures LM–79 as of March 1, 2009, and LM-31, and/or other appropriate consensus test procedures developed by the Illuminating Engineering Society or other appropriate consensus standards bodies.

"(B) If illuminating engineering society procedure LM—79 is amended, the Secretary shall amend the test procedures established in subparagraph (A) as necessary to be consistent with the amended LM–79 test procedure, unless the Secretary determines, by rule, published in the Federal Register and supported by clear and convincing evidence, that to do so would not meet the requirements for test procedures under paragraph (2).

"(C) The Secretary may revise the test procedures for outdoor luminaires or outdoor high light output lamps by rule consistent with paragraph (2), and may incorporate as appropriate consensus test procedures developed by the Illuminating Engineering Society or other appropriate consensus standards bodies.".

(4) PREEMPTION.— Section 345 of the Energy Policy and Conservation Act (42 U.S.C. 6316) is amended by adding at the end the following:

"(i)(1) Except as provided in paragraph (2), section 327 shall apply to outdoor luminaires to the same extent and in the same manner as the section applies under part B.

"(2) Any State standard that is adopted on or before January 1, 2015, pursuant to a statutory requirement to adopt efficiency standards for reducing outdoor lighting energy use enacted prior to January 31, 2008, shall not be preempted.".

(5) ENERGY EFFICIENCY STANDARDS FOR CERTAIN LUMINAIRES.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall, in consultation with the National Electrical Manufacturers Association, collect data for United States sales of luminaires described in section 340(26)(H) and (M) of the Energy Policy and Conservation Act, to determine the historical growth rate. If the Secretary finds that the growth in market share of such luminaires exceeds twice the year to year rate of the average of the previous three years, then the Secretary shall within 12 months initiate a rulemaking to determine if such exclusion should be eliminated, if substitute products exist that perform more efficiently and fulfill the performance functions of these luminaires.

(b) PORTABLE LIGHTING.—

(1) PORTABLE LIGHT FIXTURES.—

(A) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by adding at the end the following:

"(67) ART WORK LIGHT FIXTURE.—The term 'art work light fixture' means a light fixture designed only to be mounted directly to an art work and for the purpose of illuminating that art work.

"(68) LED LIGHT ENGINE.—The term 'LED light engine' or 'LED light engine with integral heat sink' means a subsystem of an LED light fixture that—

"(A) includes 1 or more LED components, including—

"(i) an LED driver power source with electrical and mechanical interfaces; and

"(ii) an integral heat sink to provide thermal dissipation; and

"(B) may be designed to accept additional components that provide aesthetic, optical, and environmental control.

"(69) LED LIGHT FIXTURE.—The term 'LED light fixture' means a complete lighting unit consisting of—

"(A) an LED light source with 1 or more LED lamps or LED light engines; and

"(B) parts—

"(i) to distribute the light;

"(ii) to position and protect the light source; and

"(iii) to connect the light source to electrical power.

"(70) LIGHT FIXTURE.—The term 'light fixture' means a product designed to provide light that includes—

"(A) at least 1 lamp socket; and

"(B) parts—

"(i) to distribute the light;

"(ii) position and protect 1 or more lamps; and

"(iii) to connect 1 or more lamps to a power supply.

"(71) PORTABLE LIGHT FIXTURE.—

"(A) IN GENERAL.—The term 'portable light fixture' means a light fixture that has a flexible cord and an attachment plug for connection to a nominal 120-volt circuit that—

"(i) allows the user to relocate the product without any rewiring; and

"(ii) typically can be controlled with a switch located on the product or the power cord of the product.

"(B) EXCLUSIONS.—The term 'portable light fixture' does not include—

"(i) direct plug-in night lights, sun or heat lamps, medical or dental lights, portable electric hand lamps, signs or commercial advertising displays, photographic lamps, germicidal lamps, or light fixtures for marine use or for use in hazardous locations (as those terms are defined in ANSI/NFPA 70 of the National Electrical Code); or

"(ii) decorative lighting strings, decorative lighting outfits, or electric candles or candelabra without lamp shades that are covered by Underwriter Laboratories (UL) standard 588, 'Seasonal and Holiday Decorative Products'.".

(B) COVERAGE.—

(i) IN GENERAL.—Section 322(a) of the Energy Policy and Conservation Act (42 U.S.C. 6292(a)) is amended—

(I) by redesignating paragraph (20) as paragraph (24); and

(II) by inserting after paragraph (19) the following:

"(20) Portable light fixtures.".

(ii) CONFORMING AMENDMENTS.—Section 325(l) of the Energy Policy and Conservation Act (42 U.S.C. 6295(l)) is amended by striking "paragraph (19)" each place it appears in paragraphs (1) and (2) and inserting "paragraph (24)".

(C) TEST PROCEDURES.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)) is amended by adding at the end the following:

"(19) LED FIXTURES AND LED LIGHT ENGINES.—Test procedures for LED fixtures and LED light engines shall be based on Illuminating Engineering Society of North America (IESNA) test procedure LM–79, Approved Method for Electrical and Photometric Testing of Solid-State Lighting Devices, and IESNA-approved test procedure for testing LED light engines.".

(D) STANDARDS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(i) by redesignating subsection (ii) as subsection (oo);

(ii) in subsection (oo)(2), as redesignated in clause (i) of this subparagraph, by striking "(hh)" each place it appears and inserting "(mm)"; and

(iii) by inserting after subsection (hh) the following:

"(ii) PORTABLE LIGHT FIXTURES.—

"(1) IN GENERAL.—Subject to paragraphs (2) and (3), portable light fixtures manufactured on or after January 1, 2012, shall meet 1 or more of the following requirements:

"(A) Be a fluorescent light fixture that meets the requirements of the Energy Star Program for Residential Light Fixtures, Version 4.2.

"(B) Be equipped with only 1 or more GU–24 line-voltage sockets, not be rated for use with incandescent lamps of any type (as defined in ANSI standards), and meet the requirements of version 4.2 of the Energy Star program for residential light fixtures.

"(C) Be an LED light fixture or a light fixture with an LED light engine and comply with the following minimum requirements:

"(i) Minimum light output: 200 lumens (initial).

"(ii) Minimum LED light engine efficacy: 40 lumens/watt installed in fixtures that meet the minimum light fixture efficacy of 29 lumens/watt or, alternatively, a minimum LED light engine efficacy of 60 lumens/watt for fixtures that do not meet the minimum light fixture efficacy of 29 lumens/watt.

"(iii) All portable fixtures shall have a minimum LED light fixture efficacy of 29 lumens/watt and a minimum LED light engine efficacy of 60 lumens/watt by January 1, 2016.

"(iv) Color Correlated Temperature (CCT): 2700K through 4000K.

"(v) Minimum Color Rendering Index (CRI): 75.

"(vi) Power factor equal to or greater than 0.70.

"(vii) Portable luminaries that have internal power supplies shall have zero standby power when the luminaire is turned off.

"(viii) LED light sources shall deliver at least 70 percent of initial lumens for at least 25,000 hours.

"(D)(i) Be equipped with an ANSI-designated E12, E17, or E26 screw-based socket and be prepackaged and sold together with 1 screw-based compact fluorescent lamp or screw-based LED lamp for each screw-based socket on the portable light fixture.

"(ii) The compact fluorescent or LED lamps prepackaged with the light fixture shall be fully compatible with any light fixture controls incorporated into the light fixture (for example, light fixtures with dimmers shall be packed with dimmable lamps).

"(iii) Compact fluorescent lamps prepackaged with light fixtures shall meet the requirements of the Energy Star Program for CFLs Version 4.0.

"(iv) Screw-based LED lamps shall comply with the minimum requirements described in subparagraph (C).

"(E) Be equipped with 1 or more single-ended, non-screw based halogen lamp sockets (line or low voltage), a dimmer control or high-low control, and be rated for a maximum of 100 watts.

"(2) REVIEW.—

"(A) REVIEW.—The Secretary shall review the criteria and standards established under paragraph (1) to determine if revised standards are technologically feasible and economically justified.

"(B) COMPONENTS.—The review shall include consideration of—

"(i) whether a separate compliance procedure is still needed for halogen fixtures described in subparagraph (E) and, if necessary, what an appropriate standard for halogen fixtures shall be;

"(ii) whether the specific technical criteria described in subparagraphs (A), (C), and (D)(iii) should be modified; and

"(iii) which fixtures should be exempted from the light fixture efficacy standard as of January 1, 2016, because the fixtures are primarily decorative in nature (as defined by the Secretary) and, even if exempted, are likely to be sold in limited quantities.

"(C) TIMING.—

"(i) DETERMINATION.—Not later than January 1, 2014, the Secretary shall publish amended standards, or a determination that no amended standards are justified, under this subsection.

"(ii) STANDARDS.—Any standards under this paragraph shall take effect on January 1, 2016.

"(3) ART WORK LIGHT FIXTURES.—Art work light fixtures manufactured on or after January 1, 2012, shall—

"(A) comply with paragraph (1); or

"(B)(i) contain only ANSI-designated E12 screw-based line-voltage sockets;

"(ii) have not more than 3 sockets;

"(iii) be controlled with an integral high/low switch;

"(iv) be rated for not more than 25 watts if fitted with 1 socket; and

"(v) be rated for not more than 15 watts per socket if fitted with 2 or 3 sockets.

"(4) EXCEPTION FROM PREEMPTION.—Notwithstanding section 327, Federal preemption shall not apply to a regulation concerning portable light fixtures adopted by the California Energy Commission on or before January 1, 2014.".

(2) GU–24 BASE LAMPS.—

(A) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) (as amended by paragraph (1)(A)) is amended by adding at the end the following:

"(72) GU–24.—The term 'GU–24' means the designation of a lamp socket, based on a coding system by the International Electrotechnical Commission, under which—

"(A) 'G' indicates a holder and socket type with 2 or more projecting contacts, such as pins or posts;

"(B) 'U' distinguishes between lamp and holder designs of similar type that are not interchangeable due to electrical or mechanical requirements; and

"(C) 24 indicates the distance in millimeters between the electrical contact posts.

"(73) GU-24 ADAPTOR.—

"(A) IN GENERAL.—The term 'GU-24 Adaptor' means a 1-piece device, pigtail, wiring harness, or other such socket or base attachment that—

"(i) connects to a GU-24 socket on 1 end and provides a different type of socket or connection on the other end; and

"(ii) does not alter the voltage.

"(B) EXCLUSION.—The term 'GU-24 Adaptor' does not include a fluorescent ballast with a GU–24 base.

"(74) GU–24 BASE LAMP.—'GU–24 base lamp' means a light bulb designed to fit in a GU–24 socket.".

(B) STANDARDS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) (as amended by paragraph (1)(D)) is amended by inserting after subsection (ii) the following:

"(jj) GU–24 BASE LAMPS.—

"(1) IN GENERAL.—A GU–24 base lamp shall not be an incandescent lamp as defined by ANSI.

"(2) GU-24 ADAPTORS.—GU–24 adaptors shall not adapt a GU–24 socket to any other line voltage socket.".

(3) STANDARDS FOR CERTAIN INCANDESCENT REFLECTOR LAMPS.—Section 325(i) of the Energy Policy and Conservation Act (42 U.S.C. 6295(i)), as amended by section 161(a)(12) of this Act, is amended by adding at the end the following:

"(9) CERTAIN INCANDESCENT REFLECTOR LAMPS.—(A) No later than 12 months after enactment of this paragraph, the Secretary shall publish a final rule establishing standards for incandescent reflector lamp types described in paragraph (1)(D). Such standards shall be effective on July 1, 2013.

"(B) Any rulemaking for incandescent reflector lamps completed after enactment of this section shall consider standards for all incandescent reflector lamps, inclusive of those specified in paragraph (1)(C).

"(10) REFLECTOR LAMPS.—No later than January 1, 2015, the Secretary shall publish a final rule establishing and amending standards for reflector lamps, including incandescent reflector lamps. Such standards shall be effective no sooner than three years after publication of the final rule. Such rulemaking shall consider incandescent and nonincandescent technologies. Such rulemaking shall consider a new metric other than lumens-per-watt based on the photometric distribution of light from such lamps.".

SEC. 212. OTHER APPLIANCE EFFICIENCY STANDARDS.

(a) STANDARDS FOR WATER DISPENSERS, HOT FOOD HOLDING CABINETS, AND PORTABLE ELECTRIC SPAS.—

(1) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291), as amended by section 211 of this Act, is further amended by adding at the end the following:

"(75) The term 'water dispenser' means a factory-made assembly that mechanically cools and heats potable water and that dispenses the cooled or heated water by integral or remote means.

"(76) The term 'bottle-type water dispenser' means a drinking water dispenser designed for dispensing both hot and cold water that uses a removable bottle or container as the source of potable water.

"(77) The term 'commercial hot food holding cabinet' means a heated, fully-enclosed compartment with one or more solid or glass doors that is designed to maintain the temperature of hot food that has been cooked in a separate appliance. Such term does not include heated glass merchandizing cabinets, drawer warmers, commercial hot food holding cabinets with interior volumes of less than 8 cubic feet, or cook-and-hold appliances.

"(78) The term 'portable electric spa' means a factory-built electric spa or hot tub, supplied with equipment for heating and circulating water.".

(2) COVERAGE.—Section 322(a) of the Energy Policy and Conservation Act (42 U.S.C. 6292(a)), as amended by section 211(b)(1)(B) of this Act, is further amended by inserting after paragraph (20) the following new paragraphs:

"(21) Bottle type water dispensers.

"(22) Commercial hot food holding cabinets.

"(23) Portable electric spas.".

(3) TEST PROCEDURES.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)), as amended by section 211(b)(1)(C) of this Act, is further amended by adding at the end the following:

"(20) BOTTLE TYPE WATER DISPENSERS.—Test procedures for bottle type water dispensers shall be based on 'Energy Star Program Requirements for Bottled Water Coolers version 1.1' published by the Environmental Protection Agency. Units with an integral, automatic timer shall not be tested using section 4D, 'Timer Usage,' of the test criteria.

"(21) COMMERCIAL HOT FOOD HOLDING CABINETS.—Test procedures for commercial hot food holding cabinets shall be based on the test procedures described in ANSI/ASTM F2140–01 (Test for idle energy rate-dry test). Interior volume shall be based on the method shown in the Environmental Protection Agency's 'Energy Star Program Requirements for Commercial Hot Food Holding Cabinets' as in effect on August 15, 2003.

"(22) PORTABLE ELECTRIC SPAS.—Test procedures for portable electric spas shall be based on the test method for portable electric spas contained in section 1604, title 20, California Code of Regulations as amended on December 3, 2008. When the American National Standards Institute publishes a test procedure for portable electric spas, the Secretary shall revise the Department of Energy's procedure.".

(4) STANDARDS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295), as amended by section 211 of this Act, is further amended by adding after subsection (jj) the following:

"(kk) BOTTLE TYPE WATER DISPENSERS.—Effective January 1, 2012, bottle-type water dispensers designed for dispensing both hot and cold water shall not have standby energy consumption greater than 1.2 kilowatt-hours per day.

"(ll) COMMERCIAL HOT FOOD HOLDING CABINETS.—Effective January 1, 2012, commercial hot food holding cabinets with interior volumes of 8 cubic feet or greater shall have a maximum idle energy rate of 40 watts per cubic foot of interior volume.

"(mm) PORTABLE ELECTRIC SPAS.—Effective January 1, 2012, portable electric spas shall not have a normalized standby power greater than $5(V^{2/3})$ Watts where V=the fill volume in gallons.

"(nn) REVISIONS.—The Secretary of Energy shall consider revisions to the standards in subsections (kk), (ll), and (mm) in accordance with subsection (o) and publish a final rule no later than January 1, 2013 establishing such revised standards, or make a finding that no revisions are technically feasible and economically justified. Any such revised standards shall take effect January 1, 2016.".

(b) COMMERCIAL FURNACE EFFICIENCY STANDARDS.—Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6312(a)) is amended by inserting after paragraph (10) the following new paragraph:

"(11) WARM AIR FURNACES.—Each warm air furnace with an input rating of 225,000 Btu per hour or more and manufactured after January 1, 2011, shall meet the following standard levels:

"(A) GAS-FIRED UNITS.—

"(i) Minimum thermal efficiency of 80 percent.

"(ii) Include an interrupted or intermittent ignition device.

"(iii) Have jacket losses not exceeding 0.75 percent of the input rating.

"(iv) Have either power venting or a flue damper.

"(B) OIL-FIRED UNITS.—

"(i) Minimum thermal efficiency of 81 percent.

"(ii) Have jacket losses not exceeding 0.75 percent of the input rating.

"(iii) Have either power venting or a flue damper.".

SEC. 213. APPLIANCE EFFICIENCY DETERMINATIONS AND PROCEDURES.

(a) DEFINITION OF ENERGY CONSERVATION STANDARD.—Section 321(6) of the Energy Policy and Conservation Act (42 U.S.C. 6291(6)) is amended to read as follows:

"(6) ENERGY CONSERVATION STANDARD.—

"(A) IN GENERAL.—The term 'energy conservation standard' means 1 or more performance standards that—

"(i) for covered products (excluding clothes washers, dishwashers, showerheads, faucets, water closets, and urinals), prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323;

"(ii) for showerheads, faucets, water closets, and urinals, prescribe a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with test procedures prescribed under section 323; and

"(iii) for clothes washers and dishwashers—

"(I) prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323; and

"(II) may include a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with those test procedures.

"(B) INCLUSIONS.—The term 'energy conservation standard' includes—

"(i) 1 or more design requirements, if the requirements were established—

"(I) on or before the date of enactment of this subclause;

"(II) as part of a direct final rule under section 325(p)(4); or

"(III) as part of a final rule published on or after January 1, 2012, and

"(ii) any other requirements that the Secretary may prescribe under section 325(r).

"(C) EXCLUSION.—The term 'energy conservation standard' does not include a performance standard for a component of a finished covered product, unless regulation of the component is specifically authorized or established pursuant to this title.".

(b) ADOPTING CONSENSUS TEST PROCEDURES AND TEST PROCEDURES IN USE ELSEWHERE.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)), as amended by sections 211 and 212 of this Act, is further amended by adding the following new paragraph after paragraph (22):

"(23) CONSENSUS AND ALTERNATE TEST PROCEDURES.—

"(A) RECEIPT OF JOINT RECOMMENDATION OR ALTERNATE TESTING PROCEDURE.—On receipt of—

"(i) a statement that is submitted jointly by interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by the Secretary, and contains recommendations with respect to the testing procedure for a covered product; or

"(ii) a submission of a testing procedure currently in use for a covered product by a State, nation, or group of nations—

"(I) if the Secretary determines that the recommended testing procedure contained in the statement or submission is in accordance with subsection (b)(3), the Secretary may issue a final rule that establishes an energy or water conservation testing procedure that is published simultaneously with a notice of proposed rulemaking that proposes a new or amended energy or water conservation testing procedure that is identical to the testing procedure established in the final rule to establish the recommended testing procedure (referred to in this paragraph as a 'direct final rule'); or

"(II) if the Secretary determines that a direct final rule cannot be issued based on the statement or submission, the Secretary shall publish a notice of the determination, together with an explanation of the reasons for the determination.

"(B) PUBLIC COMMENT.—The Secretary shall solicit public comment for a period of at least 110 days with respect to each direct final rule issued by the Secretary under subparagraph (A)(ii)(I).

"(C) WITHDRAWAL OF DIRECT FINAL RULES.—

"(i) IN GENERAL.—Not later than 120 days after the date on which a direct final rule issued under subparagraph (A)(ii)(I) is published in

the Federal Register, the Secretary shall withdraw the direct final rule if—

"(I) the Secretary receives 1 or more adverse public comments relating to the direct final rule under subparagraph (B)or any alternative joint recommendation; and

"(II) based on the rulemaking record relating to the direct final rule, the Secretary determines that such adverse public comments or alternative joint recommendation may provide a reasonable basis for withdrawing the direct final rule under paragraph (3) or any other applicable law.

"(ii) ACTION ON WITHDRAWAL.—On withdrawal of a direct final rule under clause (i), the Secretary shall—

"(I) proceed with the notice of proposed rulemaking published simultaneously with the direct final rule as described in subparagraph (A)(ii)(I); and

"(II) publish in the Federal Register the reasons why the direct final rule was withdrawn.

"(iii) TREATMENT OF WITHDRAWN DIRECT FINAL RULES.—A direct final rule that is withdrawn under clause (i) shall not be considered to be a final rule for purposes of subsection (b).

"(D) EFFECT OF PARAGRAPH.—Nothing in this paragraph authorizes the Secretary to issue a direct final rule based solely on receipt of more than 1 statement containing recommended test procedures relating to the direct final rule.".

(c) UPDATING TELEVISION TEST METHODS.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)), as amended by sections 211 and 212 of this Act, and subsection (b) of this section, is further amended by adding at the end the following new paragraph:

"(24) TELEVISIONS.—(A) On the date of enactment of this paragraph, Appendix H to Subpart B of Part 430 of the United States Code of Federal Regulations, 'Uniform Test Method for Measuring the Energy Consumption of Television Sets', is repealed.

"(B) No later than 12 months after the date of enactment of this paragraph the Secretary shall publish in the Federal Register a final rule prescribing a new test method for televisions.".

(d) CRITERIA FOR PRESCRIBING NEW OR AMENDED STANDARDS.—(1) Section 325(o)(2)(B)(i) of the Energy Policy and Conservation Act (42 U.S.C. 6295(o)(2)(B)(i)) is amended as follows:

(A) By striking "and" at the end of subclause (VI).

(B) By redesignating subclause (VII) as subclause (XI).

(C) By inserting the following new subclauses after subclause (VI):

"(VII) the estimated value of the carbon dioxide and other emission reductions that will be achieved by virtue of the higher energy efficiency of the covered products resulting from the imposition of the standard;

"(VIII) the estimated impact of standards for a particular product on average consumer energy prices;

"(IX) the increased energy efficiency that may be attributable to the installation of Smart Grid technologies or capabilities in the covered products, if applicable in the determination of the Secretary;

"(X) the availability in the United States or in other nations of examples or prototypes of covered products that achieve significantly higher efficiency standards for energy or for water; and".

(2) Section 325(o)(2)(B)(iii) of such Act is amended as follows:

(A) By striking "three" and inserting "5".

(B) By inserting after the first sentence the following "For products with an average expected useful life of less than 5 years, such rebuttable presumption shall be determined utilizing 75 percent of the product's average expected useful life as a multiplier instead of 5.".

(C) By striking the last sentence and inserting the following: "Such a presumption may be rebutted only if the Secretary finds, based on clear, convincing, and reliable evidence, that—

"(I) such standard level would cause serious and unavoidable hardship to the average consumer of the product, or to manufacturers supplying a significant portion of the market for the product, that substantially outweighs the standard level's benefits;

"(II) the standard and implementing regulations cannot be designed to avoid or mitigate the hardship identified under subclause (I), through the adoption of regional standards consistent with paragraph (6) of this subsection, or other reasonable means consistent with this part;

"(III) the same or substantially similar hardship would not occur under a standard adopted in the absence of the presumption, but that otherwise meets the requirements of this section; and

"(IV) the hardship cannot be avoided or mitigated pursuant the procedures specified in section 504 of the Department of Energy Organization Act (42 U.S.C. 7194).

A determination by the Secretary that the criteria triggering such presumption are not met, or that the criterion for rebutting the presumption are met shall not be taken into consideration in the Secretary's determination of whether a standard is economically justified.".

(e) OBTAINING APPLIANCE INFORMATION FROM MANUFACTURERS.—Section 326(d) of the Energy Policy and Conservation Act (42 U.S.C. 6295(d)) is amended to read as follows:

"(d) INFORMATION REQUIREMENTS.—(1) For purposes of carrying out this part, the Secretary shall publish proposed regulations not later than one year after the date of enactment of the American Clean Energy and Security Act of 2009, and after receiving public comment, final regulations not later than 18 months from such date of enactment under this part or other provision of law administered by the Secretary, which shall require each manufacturer of a covered product to submit information or reports to the Secretary on an annual basis in a form adopted by the Secretary. Such reports shall include information or data with respect to—

"(A) the manufacturers' compliance with all requirements applicable pursuant to this part;

"(B) the economic impact of any proposed energy conservation standard;

"(C) the manufacturers' annual shipments of each class or category of covered products, organized, to the maximum extent practicable, by—

"(i) energy efficiency, energy use, and, if applicable, water use;

"(ii) the presence or absence of such efficiency related or energy consuming operational characteristics or components as the Secretary determines are relevant for the purposes of carrying out this part; and

"(iii) the State or regional location of sale, for covered products for which the Secretary may adopt regional standards; and

"(D) such other categories of information as the Secretary deems relevant to carry out this part, including such other information as may be necessary to establish and revise test procedures, labeling rules, and energy conservation standards and to insure compliance with the requirements of this part.

"(2) In adopting regulations under this subsection, the Secretary shall consider existing public sources of information, including nationally recognized certification programs of trade associations.

"(3) The Secretary shall exercise authority under this section in a manner designed to minimize unnecessary burdens on manufacturers of covered products.

"(4) To the extent that they do not conflict with the duties of the Secretary in carrying out this part, the provisions of section 11(d) of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 796(d)) shall apply with respect to information obtained under this subsection to the same extent and in the same manner as they apply with respect to other energy information obtained under such section.".

(f) STATE WAIVER.—Section 327(c) of the Energy Policy and Conservation Act (42 U.S.C. 6297(c)), as amended by section 161(a)(19) of this Act, is further amended by adding at the end the following:

"(12) is a regulation concerning standards for hot food holding cabinets, drinking water dispensers and portable electric spas adopted by the California Energy Commission on or before January 1, 2013.".

(g) WAIVER OF FEDERAL PREEMPTION.—Paragraph (1) of section 327(d) of the Energy Policy and Conservation Act (42 U.S.C. 6297(d)) is amended as follows:

(1) In subparagraph (A) by striking "State regulation" each place it appears and inserting "State statute or regulation".

(2) In subparagraph (B) by adding at the end the following new sentence: "In making such a finding, the Secretary may not reject a petition for failure of the petitioning State or river basin commission to produce confidential information maintained by any manufacturer or distributor, or group or association of manufacturers or distributors, and which the petitioning party does not have the legal right to obtain.".

(3) In clause (ii) of subparagraph (C) by striking "costs" each place it appears and inserting "estimated costs".

(4) In subparagraph (C) by striking "within the context of the State's energy plan and forecast, and,".

(h) INCLUSION OF CARBON OUTPUT ON APPLIANCE "ENERGYGUIDE" LABELS.—(1) Section 324(a)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended by adding the following at the end:

"(I)(i) Not later than 90 days after the date of enactment of this subparagraph, the Commission shall initiate a rulemaking to implement the additional labeling requirements specified in subsection (c)(1)(C) of this section with an effective date for the revised labeling requirement not later than 12 months from issuance of the final rule.

"(ii) Not later than 24 months after the date of enactment of this subparagraph, the Commission shall complete the rulemaking initiated under clause (i).

"(iii) Not later than 90 days after issuance of the final rule as provided in this subparagraph, the Secretary shall issue calculation methods required to effectuate the labeling requirements specified in subsection (c)(1)(C) of this section.".

(2) Section 324(c)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6294(c)(1)) is amended—

(A) by striking "and" at the end of subparagraph (A);

(B) by striking the period at the end of subparagraph (B) and inserting a semicolon; and

(C) by adding at the end the following new subparagraphs:

"(C) for products or groups of products providing a comparable function (including the group of products comprising the heating function of heat pumps and furnaces) among covered products listed in paragraphs (3), (4), (5), (8), (9), (10), and (11) of section 322(a) of this part, and others designated by the Secretary, the estimated total annual atmospheric carbon dioxide emissions (or their equivalent in other greenhouse gases) associated with, or caused by, the product, calculated utilizing—

"(i) national average energy use for the product including energy consumed at the point of end use based on test procedures developed under section 323 of this part;

"(ii) national average energy consumed or lost in the production, generation, transportation, storage, and distribution of energy to the point of end use; and

"(iii) any direct emissions of greenhouse gases from the product during normal use;

"(D) in determining the national average energy consumption and total annual atmospheric carbon dioxide emissions, the Secretary shall utilize Federal Government sources, including the Energy Information Administration Annual Energy Review, the Environmental Protection Agency eGRID data base, Environmental Protection Agency AP–42 Emission Factors as amended, and other sources determined to be appropriate by the Secretary; and

"(E) information presenting, for each product (or group of products providing the comparable function) identified in section (c)(1)(C) of this section, the estimated annual carbon dioxide emissions calculated within the range of emissions calculated for all models of the product or group according to its function, including those models consuming fuels and those models not consuming fuels.".

(i) PERMITTING STATES TO SEEK INJUNCTIVE ENFORCEMENT.—(1) Section 334 of the Energy Policy and Conservation Act (42 U.S.C. 6304) is amended to read as follows:

"SEC. 334. JURISDICTION AND VENUE.

"(a) JURISDICTION.—The United States district courts shall have jurisdiction to restrain—

"(1) any violation of section 332; and

"(2) any person from distributing in commerce any covered product which does not comply with an applicable rule under section 324 or 325.

"(b) AUTHORITY.—Any action referred to in subsection (a) shall be brought by the Commission or by the attorney general of a State in the name of the State, except that—

"(1) any such action to restrain any violation of section 332(a)(3) which relates to requirements prescribed by the Secretary or any violation of section 332(a)(4) which relates to request of the Secretary under section 326(b)(2) shall be brought by the Secretary; and

"(2) any violation of section 332(a)(5) or 332(a)(7) shall be brought by the Secretary or by the attorney general of a State in the name of the State.

"(c) VENUE AND SERVICE OF PROCESS.—Any such action may be brought in the United States district court for a district wherein any act, omission, or transaction constituting the violation occurred, or in such court of the district wherein the de-

fendant is found or transacts business. In any action under this section, process may be served on a defendant in any other district in which the defendant resides or may be found.".

(2) The item relating to section 334 in the table of contents for such Act is amended to read as follows:

"Sec. 334. Jurisdiction and venue.".

(j) TREATMENT OF APPLIANCES WITHIN BUILDING CODES.—(1) Section 327(f)(3) of the Energy Policy and Conservation Act (42 U.S.C. 6297(f)(3)) is amended by striking subparagraphs (B) through (G) and inserting the following:

"(B) The code meets at least one of the following requirements:

"(i) The code does not require that the covered product have an energy efficiency exceeding—

"(I) the applicable energy conservation standard established in or prescribed under section 325;

"(II) the level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d) of this section; or

"(III) the required level established in the International Energy Conservation Code or in a standard of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, or by the Secretary pursuant to section 304 of the Energy Conservation and Production Act.

"(ii) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline building designs contain a covered product subject to an energy conservation standard established in or prescribed under section 325, the baseline building designs are based on an efficiency level for such covered product which meets but does not exceed one of the levels specified in clause (i).

"(iii) If the code sets forth one or more optional combinations of items which meet the energy consumption or conservation objective, in at least one combination that the State has found to be reasonably achievable using commercially available technologies the efficiency of the covered product meets but does not exceed one of the levels specified in clause (i).

"(C) The credit to the energy consumption or conservation objective allowed by the code for installing covered products having energy efficiencies exceeding one of the levels specified in subparagraph (B)(i) is on a one-for-one equivalent energy use or equivalent energy cost basis, taking into account the typical lifetime of the product.

"(D) The energy consumption or conservation objective is specified in terms of an estimated total consumption of energy (which may be calculated from energy loss- or gain-based codes) utilizing an equivalent amount of energy (which may be specified in units of energy or its equivalent cost) and equivalent lifetimes.

"(E) The estimated energy use of any covered product permitted or required in the code, or used in calculating the objective, is determined using the applicable test procedures prescribed under section 323, except that the State may permit the estimated energy use calculation to be adjusted to reflect the conditions of the areas where the code is being applied if such adjustment is based on the use of the applicable test procedures prescribed under section 323 or other technically accurate documented procedure.".

(2) Section 327(f)(4)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6297(f)(4)(B)) is amended to read as follows:

"(B) If a building code requires the installation of covered products with efficiencies exceeding the levels and requirements specified in paragraph (3)(B), such requirement of the building code shall not be applicable unless the Secretary has granted a waiver for such requirement under subsection (d) of this section.".

SEC. 214. BEST-IN-CLASS APPLIANCES DEPLOYMENT PROGRAM.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy, in consultation with the Administrator, shall establish a program to be known as the "Best-in-Class Appliances Deployment Program" to—

(1) provide bonus payments to retailers or distributors under subsection (c) for sales of best-in-class high-efficiency household appliance models, high-efficiency installed building equipment, and high-efficiency consumer electronics, with the goal of reducing life-cycle costs for consumers, encouraging innovation, and maximizing energy savings and public benefit;

(2) provide bounties under subsection (d) to retailers for the replacement, retirement, and recycling of old, inefficient, and environmentally harmful products; and

(3) provide premium awards under subsection (e) to manufacturers for developing and producing new Superefficient Best-in-Class Products.

(b) DESIGNATION OF BEST-IN-CLASS PRODUCT MODELS.—

(1) IN GENERAL.—The Secretary of Energy shall designate product models of appliances, equipment, or electronics as Best-in-Class Product models. The Secretary shall publicly announce the Best-in-Class Product models designated under this subsection. The Secretary shall define product classes broadly and, except as provided in paragraph (2), shall designate as Best-in-Class Product models no more than the most efficient 10 percent of the commercially available product models in a class that demonstrate, as a group, a distinctly greater energy efficiency than the average energy efficiency of that class of appliances, equipment, or electronics. In designating models, the Secretary shall—

(A) identify commercially available models in the relevant class of products;

(B) identify the subgroup of those models that share the distinctly higher energy-efficiency characteristics that warrant designation as best-in-class; and

(C) add other models in that class to the list of Best-in-Class Product models as they demonstrate their ability to meet the higher-efficiency characteristics on which the designation was made.

(2) PERCENTAGE EXCEPTION.—If there are fewer than 10 product models in a class of products, the Secretary may designate one or more of such models as Best-in-Class Products.

(3) REVIEW OF BEST-IN-CLASS STANDARDS.—The Secretary shall review annually the product-specific criteria for designating, and the product models that qualify as, Best-in-Class Products and, after notice and a 30-day comment period, make upwards adjustments in the efficiency criteria as necessary to maintain an appropriate ratio of such product models to the total number of product models in the product class.

(c) BONUSES FOR SALES OF BEST-IN-CLASS PRODUCTS.—

(1) IN GENERAL.—The Secretary of Energy shall make bonus payments to retailers or, as provided in paragraph (5)(B), distributors for the sale of Best-in-Class Products.

(2) BONUS PROGRAM.—The Secretary shall—

(A) publicly announce the availability and amount of the bonus to be paid for each sale of a Best-in-Class Product of a model designated under subsection (b); and

(B) make bonus payments in at least that amount for each Best-in-Class Product of that model sold during the 3-year period beginning on the date the model is designated under subsection (b).

(3) UPGRADE OF BEST-IN-CLASS PRODUCT ELIGIBILITY.—In conducting a review under subsection (b)(3), the Secretary shall—

(A) consider designating as a Best-in-Class Product model a Superefficient Best-in-Class Product model that has been designated pursuant to subsection (e);

(B) announce any change in the bonus payment as necessary to increase the market share of Best-in-Class Product models;

(C) list models that will be eligible for bonuses in the new amount; and

(D) continue paying bonus payments at the original level, for the sale of any models that previously qualified as Best-in-Class Products but do not qualify at the new level, for the remainder of the 3-year period announced with the original designation.

(4) SIZE OF INDIVIDUAL BONUS PAYMENTS.—(A) The size of each bonus payment under this subsection shall be the product of—

(i) an amount determined by the Secretary; and

(ii) the difference in energy consumption between the Best-in-Class Product and the average product in the product class.

(B) The Secretary shall determine the amount under subparagraph (A)(i) for each product type, in consultation with State and utility efficiency program administrators as well as the Administrator, based on estimates of the amount of bonus payment that would provide significant incentive to increase the market share of Best-in-Class Products.

(5) ELIGIBLE BONUS RECIPIENT.—(A) The Secretary shall ensure that not more than 1 bonus payment is provided under this subsection for each Best-in-Class Product.

(B) The Secretary may make distributors eligible to receive bonus payments under this subsection for sales that are not to the final end-user, to the extent that the Secretary determines that for a particular product category distributors are well situated to increase sales of Best-in-Class Products.

(d) BOUNTIES FOR REPLACEMENT, RETIREMENT, AND RECYCLING OF EXISTING LOW-EFFICIENCY PRODUCTS.—

(1) IN GENERAL.—The Secretary of Energy shall make bounty payments to retailers for the replacement, retirement, and recycling of older operating low-efficiency products that might otherwise continue in operation.

(2) BOUNTIES.—Bounties shall be payable upon documentation that the sale of a Best-in-Class Product was accompanied by the replacement, retirement, and recycling of—

(A) an inefficient but still-functioning product; or

(B) a nonfunctioning product containing a refrigerant,

by the consumer to whom the Best-in-Class Product was sold.

(3) AMOUNT.—

(A) FUNCTIONING PRODUCTS.—The bounty payment payable under this subsection for a product described in paragraph (2)(A) shall be based on the difference between the estimated energy use of the product replaced and the energy use of an average new product in the product class, over the estimated remaining lifetime of the product that was replaced.

(B) NONFUNCTIONING PRODUCTS CONTAINING REFRIGERANTS.—The bounty payment payable under this subsection for a product described in paragraph (2)(B) shall be in the amount that the Secretary of Energy, in consultation with the Administrator, determines is sufficient to promote the recycling of such products, up to the amount of bounty for a comparable product described in paragraph (2)(A).

(4) RETIREMENT.—The Secretary shall ensure that no product for which a bounty is paid under this subsection is returned to active service, but that it is instead destroyed, and recycled to the extent feasible.

(5) RECYCLING APPLIANCES CONTAINING REFRIGERANTS.—Exclusively for the purpose of implementing the bounty payment program for products containing a refrigerant under this section, the Administrator shall establish standards for environmentally responsible methods of recycling and disposal of refrigerant-containing appliances that, at a minimum, meet the requirements set by the Responsible Appliance Disposal (RAD) Program for refrigerant disposal. The Secretary shall ensure that such standards are met before a bounty payment is made under this subsection for a product containing a refrigerant. Nothing in this section shall be interpreted to alter the requirements of section 608 of the Clean Air Act or to relieve any person from complying with those requirements.

(e) PREMIUM AWARDS FOR DEVELOPMENT AND PRODUCTION OF SUPEREFFICIENT BEST-IN-CLASS PRODUCTS.—

(1) IN GENERAL.—(A) The Secretary of Energy shall provide premium awards to manufacturers for the development and production of Superefficient Best-in-Class Products. The Secretary shall set and periodically revise standards for eligibility of products for designation as a Superefficient Best-in-Class Product.

(B) The Secretary may establish a standard for a Superefficient Best-in-Class Product even if no product meeting that standard exists, if the Secretary has reasonable grounds to conclude that a mass-producible product could be made to meet that standard.

(C) The Secretary may also establish a Superefficient Best-in-Class Product standard that is met by one or more existing Best-in-Class Product models, if those product models have distinct energy efficiency attributes and performance characteristics that make them significantly better than other product models qualifying as best-in-class. The Secretary may not designate as Superefficient Best-in-Class Products under this subparagraph models that represent more than 10 percent of the currently qualifying Best-in-Class Product models.

(2) PREMIUM AWARDS.—(A) The premium award payment provided to a manufacturer under this subsection shall be in addition to any bonus payments made under subsection (c).

(B) The amount of the premium award paid per unit of Superefficient Best-in-Class Products sold to retailers or distributors shall be the product of—

(i) an amount determined by the Secretary; and

(ii) the difference in energy consumption between the Superefficient Best-in-Class Product and the average product in the product class.

(C) The Secretary shall determine the amount under subparagraph (B)(i) for each product type, in consultation with State and utility efficiency program administrators as well as the Administrator, based on consideration of the present value to the Nation of the energy (and water or other resources or inputs) saved over the useful life of the product. The Secretary may also take into consideration the methods used to increase sales of qualifying products in determining such amount.

(D) The Secretary may adjust the value described in subparagraph (C) upward or downward as appropriate, including based on the effect of the premium

awards on the sales of products in different classes that may be affected by the program under this subsection.

(E) Premium award payments shall be applied to sales of any Superefficient Best-in-Class Product for the first 3 years after designation as a Superefficient Best-in-Class Product.

(3) COORDINATION OF INCENTIVES.—No product for which Federal tax credit is received under section 45M of the Internal Revenue Code of 1986 shall be eligible to receive premium award payments pursuant to this subsection.

(f) REPORTING.—The Secretary of Energy shall require, as a condition of receiving a bonus, bounty, or premium award under this section, that a report containing the following documentation be provided:

(1) For retailers and distributors, the number of units sold within each product type, and model-specific wholesale purchase prices and retail sale prices, on a monthly basis.

(2) For manufacturers, model-specific energy consumption data.

(3) For manufacturers, on an immediate basis, information concerning any product design or function changes that affect the energy consumption of the unit.

(4) The methods used to increase the sales of qualifying products.

(g) MONITORING AND VERIFICATION PROTOCOLS.—The Secretary of Energy shall establish monitoring and verification protocols for energy consumption tests for each product model and for sales of energy-efficient models.

(h) DISCLOSURE.—The Secretary of Energy may require that retailers and distributors disclose publicly and to consumers their participation in the program under this section.

(i) COST-EFFECTIVENESS REQUIREMENT.—

(1) REQUIREMENT.—The Secretary of Energy shall make cost-effectiveness a top priority in designing the program under, and administering, this section, except that the cost-effectiveness of providing premium awards to manufacturers under subsection (e), in aggregate, may be lower by this measure than that of the bonuses and bounties to retailers and distributors under subsections (c) and (d).

(2) DEFINITIONS.—In this subsection:

(A) COST-EFFECTIVENESS.—The term "cost-effectiveness" means a measure of aggregate savings in the cost of energy over the lifetime of a product in relation to the cost to the Secretary of the bonuses, bounties, and premium awards provided under this section for a product.

(B) SAVINGS.—The term "savings" means the cumulative megawatt-hours of electricity or million British thermal units of other fuels saved by a product during the projected useful life of the product, in comparison to projected energy consumption of the average product in the same class, taking into consideration the impact of any documented measures to replace, retire, and recycle low-efficiency products at the time of purchase of highly-efficient substitutes.

(j) DEFINITIONS.—In this section—

(1) the term "distributor" mean an individual, organization, or company that sells products in multiple lots and not directly to end-users;

(2) the term "retailer" means an individual, organization, or company that sells products directly to end-users; and

(3) the term "Superefficient Best-in-Class Product" means a product that—

(A) can be mass produced; and

(B) achieves the highest level of efficiency that the Secretary of Energy finds can, given the current state of technology, be produced and sold commercially to mass-market consumers.

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $300,000,000 for each of the fiscal years 2010 through 2014 to the Secretary of Energy for purposes of this section, of which not more than 10 percent for any fiscal year may be expended on program administration.

SEC. 215. WATERSENSE.

(a) IN GENERAL.—There is established within the Environmental Protection Agency a WaterSense program to identify and promote water efficient products, buildings and landscapes, and services in order—

(1) to reduce water use;

(2) to reduce the strain on water, wastewater, and stormwater infrastructure;

(3) to conserve energy used to pump, heat, transport, and treat water; and

(4) to preserve water resources for future generations,

through voluntary labeling of, or other forms of communications about, products, buildings and landscapes, and services that meet the highest water efficiency and performance standards.

(b) DUTIES.—The Administrator shall—

(1) promote WaterSense labeled products, buildings and landscapes, and services in the market place as the preferred technologies and services for—

(A) reducing water use; and

(B) ensuring product and service performance;

(2) work to enhance public awareness of the WaterSense label through public outreach, education, and other means;

(3) establish and maintain performance standards so that products, buildings and landscapes, and services labeled with the WaterSense label perform as well or better than their less efficient counterparts;

(4) publicize the need for proper installation and maintenance of WaterSense products by a licensed, and where certification guidelines exist, WaterSense-certified professional to ensure optimal performance;

(5) preserve the integrity of the WaterSense label;

(6) regularly review and, when appropriate, update WaterSense criteria for categories of products, buildings and landscapes, and services, at least once every four years;

(7) to the extent practical, regularly estimate and make available to the public the production and relative market shares of WaterSense labeled products, buildings and landscapes, and services, at least annually;

(8) to the extent practical, regularly estimate and make available to the public the water and energy savings attributable to the use of WaterSense labeled products, buildings and landscapes, and services, at least annually;

(9) solicit comments from interested parties and the public prior to establishing or revising a WaterSense category, specification, installation criterion, or other criterion (or prior to effective dates for any such category, specification, installation criterion, or other criterion);

(10) provide reasonable notice to interested parties and the public of any changes (including effective dates), on the adoption of a new or revised category, specification, installation criterion, or other criterion, along with—

(A) an explanation of changes; and

(B) as appropriate, responses to comments submitted by interested parties;

(11) provide appropriate lead time (as determined by the Administrator) prior to the applicable effective date for a new or significant revision to a category, specification, installation criterion, or other criterion, taking into account the timing requirements of the manufacturing, marketing, training, and distribution process for the specific product, building and landscape, or service category addressed; and

(12) identify and, where appropriate, implement other voluntary approaches in commercial, institutional, residential, municipal, and industrial sectors to encourage reuse and recycling technologies, improve water efficiency, or lower water use while meeting, where applicable, the performance standards established under paragraph (3).

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $7,500,000 for fiscal year 2010, $10,000,000 for fiscal year 2011, $20,000,000 for fiscal year 2012, and $50,000,000 for fiscal year 2013 and each year thereafter, adjusted for inflation, to carry out this section.

SEC. 216. FEDERAL PROCUREMENT OF WATER EFFICIENT PRODUCTS.

(a) DEFINITIONS.—In this section:

(1) AGENCY.—The term "agency" has the meaning given that term in section 7902(a) of title 5, United States Code.

(2) WATERSENSE PRODUCT OR SERVICE.—The term "WaterSense product or service" means a product or service that is rated for water efficiency under the WaterSense program.

(3) WATERSENSE PROGRAM.—The term "WaterSense program" means the program established by section 215 of this Act.

(4) FEMP DESIGNATED PRODUCT.—The term "FEMP designated product" means a product that is designated under the Federal Energy Management Program of the Department of Energy as being among the highest 25 percent of equivalent products for efficiency.

(5) PRODUCT AND SERVICE.—The terms "product" and "service" do not include any water consuming product or service designed or procured for combat or combat-related missions. The terms also exclude products or services already

covered by the Federal procurement regulations established under section 553 of the National Energy Conservation Policy Act (42 U.S.C. 8259b).

(b) PROCUREMENT OF WATER EFFICIENT PRODUCTS.—

(1) REQUIREMENT.—To meet the requirements of an agency for a water consuming product or service, the head of the agency shall, except as provided in paragraph (2), procure—

(A) a WaterSense product or service; or

(B) a FEMP designated product.

A WaterSense plumbing product should preferably, when possible, be installed by a licensed and, when WaterSense certification guidelines exist, WaterSense-certified plumber or mechanical contractor, and a WaterSense irrigation system should preferably, when possible, be installed, maintained, and audited by a WaterSense-certified irrigation professional to ensure optimal performance.

(2) EXCEPTIONS.—The head of an agency is not required to procure a WaterSense product or service or FEMP designated product under paragraph (1) if the head of the agency finds in writing that—

(A) a WaterSense product or service or FEMP designated product is not cost-effective over the life of the product, taking energy and water cost savings into account; or

(B) no WaterSense product or service or FEMP designated product is reasonably available that meets the functional requirements of the agency.

(3) PROCUREMENT PLANNING.—The head of an agency shall incorporate into the specifications for all procurements involving water consuming products and systems, including guide specifications, project specifications, and construction, renovation, and services contracts that include provision of water consuming products and systems, and into the factors for the evaluation of offers received for the procurement, criteria used for rating WaterSense products and services and FEMP designated products. The head of an agency shall consider, to the maximum extent practicable, additional measures for reducing agency water consumption, including water reuse technologies, leak detection and repair, and use of waterless products that perform similar functions to existing water-consuming products.

(c) REGULATIONS.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy, working in coordination with the Administrator, shall issue guidelines to carry out this section.

SEC. 217. WATER EFFICIENT PRODUCT REBATE PROGRAMS.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE STATE.—The term "eligible State" means a State that meets the requirements of subsection (b).

(2) RESIDENTIAL WATER EFFICIENT PRODUCT OR SERVICE.—The term "residential water efficient product or service" means a product or service for a residence or its landscape that is rated for water efficiency and performance—

(A) by the WaterSense program, where a WaterSense specification does not exist; or

(B) by a State program and approved by the Administrator.

Categories of water efficient products and services may include faucets, irrigation technologies and services, point-of-use water treatment devices, reuse and recycling technologies, toilets, and showerheads.

(3) STATE PROGRAM.—The term "State program" means a State program for administering rebates or vouchers for consumer purchase of water efficient products and services as described in subsection (b)(1).

(4) WATERSENSE PROGRAM.—The term "WaterSense program" means the program established by section 215 of this Act.

(b) ELIGIBLE STATES.—A State shall be eligible to receive an allocation under subsection (c) if the State—

(1) establishes (or has established) a State program to provide rebates or vouchers to residential consumers for the purchase of residential water efficient products or services to replace used products of the same type;

(2) submits an application for the allocation at such time, in such form, and containing such information as the Administrator may require; and

(3) provides assurances satisfactory to the Administrator that the State will use the allocation to supplement, but not supplant, funds made available to carry out the State program.

(c) AMOUNT OF ALLOCATIONS.—

(1) IN GENERAL.—Subject to paragraph (2), for each fiscal year, the Administrator shall allocate to each eligible State to carry out subsection (d) an amount equal to the product obtained by multiplying the amount made available under subsection (g) for the fiscal year by the ratio that the population of the State

in the most recent calendar year for which data are available bears to the total population of all eligible States in that calendar year.

(2) MINIMUM ALLOCATIONS.—For each fiscal year, the amounts allocated under this subsection shall be adjusted proportionately so that no eligible State is allocated a sum that is less than an amount determined by the Administrator.

(d) USE OF ALLOCATED FUNDS.—Funds allocated to a State under subsection (c) may be used to pay up to 50 percent of the cost of establishing and carrying out a State program.

(e) FIXTURE RECYCLING.—States are encouraged to promote or implement fixture recycling programs to manage the disposal of older fixtures replaced due to the rebate program under this section.

(f) ISSUANCE OF REBATES.—Rebates or vouchers may be provided to residential consumers that meet the requirements of the State program. The State may issue all rebates or vouchers directly to residential consumers or, with approval of the Administrator, delegate some or all rebate and voucher administration to other organizations including, but not limited to, local governments, municipal water authorities, and water utilities. The amount of a rebate or voucher shall be determined by the State, taking into consideration—

(1) the amount of the allocation to the State under subsection (c);

(2) the amount of any Federal or State tax incentive available for the purchase of the residential water efficient product or service;

(3) the amount necessary to change consumer behavior to purchase water efficient products and services; and

(4) the consumer expenditures for onsite preparation, assembly, and original installation of the product.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator to carry out this section $50,000,000 for each of the fiscal years 2010 and 2011, $75,000,000 for fiscal year 2012, $100,000,000 for fiscal year 2013, and $150,000,000 for fiscal year 2014 and each year thereafter, adjusted for inflation.

SEC. 218. CERTIFIED STOVES PROGRAM.

(a) DEFINITIONS.—In this section:

(1) AGENCY.—The term "Agency" means the Environmental Protection Agency.

(2) WOOD STOVE OR PELLET STOVE.—The term "wood stove or pellet stove" means a wood stove, pellet stove, or fireplace insert that uses wood or pellets for fuel.

(3) CERTIFIED STOVE.—The term "certified stove" means a wood stove or pellet stove that meets the standards of performance for new residential wood heaters under subpart AAA of part 60 of subchapter C of chapter I of title 40, Code of Federal Regulations (or successor regulations), as certified by the Administrator. Pellet stoves and fireplace inserts using pellets for fuel that are exempt from testing by the Administrator but meet the same standards of performance as wood stoves are considered certified for the purposes of this section.

(4) ELIGIBLE ENTITY.—The term "eligible entity" means—

(A) a State, a local government, or a federally recognized Indian tribe;

(B) Alaskan Native villages or regional or village corporations (as defined in, or established under, the Alaskan Native Claims Settlement Act (43 U.S.C. 1601 et seq.)); and

(C) a nonprofit organization or institution that—

(i) represents or provides pollution reduction or educational services relating to wood smoke minimization to persons, organizations, or communities; or

(ii) has, as its principal purpose, the promotion of air quality or energy efficiency.

(b) ESTABLISHMENT.—The Administrator shall establish and carry out a program to assist in the replacement of wood stoves or pellet stoves that do not meet the standards of performance referred to in subsection (a)(4) by—

(1) requiring that each wood stove or pellet stove sold in the United States on and after the date of enactment of this Act meet the standards of performance referred to in subsection (a)(4);

(2) requiring that no wood stove or pellet stove replaced under this program is sold or returned to active service, but that it is instead destroyed and recycled to the maximum extent feasible;

(3) providing funds to an eligible entity to replace a wood stove or pellet stove that does not meet the standards of performance in subsection (a)(4) with a certified stove, including funds to pay for—

(A) installation of a replacement certified stove; and

(B) necessary replacement of or repairs to ventilation, flues, chimneys, or other relevant items necessary for safe installation of a replacement certified stove;

(4) in addition to any funds that may be appropriated for the program under this subsection, using existing Federal, State, and local programs and incentives, to the greatest extent practicable;

(5) prioritizing the replacement of wood stoves or pellet stoves manufactured before July 1, 1990; and

(6) carrying out such other activities as the Administrator determines appropriate to facilitate the replacement of wood stoves or pellet stoves that do not meet the standards of performance referred to in subsection (a)(3).

(c) REGULATIONS.—The Administrator may promulgate such regulations as are necessary to carry out the program established under subsection (b).

(d) FUNDING.—

(1) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out the program under this section $20,000,000 for the period of fiscal years 2010 through 2014.

(2) DESIGNATED USE.—Of amounts appropriated pursuant to this subsection—

(A) 25 percent shall be designated for use to carry out the program under this section on lands held in trust for the benefit of a federally recognized Indian tribe;

(B) 3 percent shall be designated for use to carry out the program under this section in Alaskan Native villages or regional or village corporations (as defined in, or established under, the Alaskan Native Claims Settlement Act (43 U.S.C. 1601 et seq.)); and

(C) 72 percent shall be designated for use to carry out the program under this section nationwide.

(3) REGULATORY PROGRAMS.—

(A) IN GENERAL.—No grant or loan provided under this section shall be used to fund the costs of emissions reductions that are mandated under Federal, State, or local law.

(B) MANDATED.—For purposes of subparagraph (A), voluntary or elective emission reduction measures shall not be considered "mandated", regardless of whether the reductions are included in the implementation plan of a State.

(e) EPA AUTHORITY TO ACCEPT WOOD STOVE OR PELLET STOVE REPLACEMENT SUPPLEMENTAL ENVIRONMENTAL PROJECTS.—

(1) IN GENERAL.—The Administrator may accept (notwithstanding sections 3302 and 1301 of title 31, United States Code) wood stove or pellet stove replacement Supplemental Environmental Projects if such projects, as part of a settlement of any alleged violation of environmental law—

(A) protect human health or the environment;

(B) are related to the underlying alleged violation;

(C) do not constitute activities that the defendant would otherwise be legally required to perform; and

(D) do not provide funds for the staff of the Agency or for contractors to carry out the Agency's internal operations.

(2) CERTIFICATION.—In any settlement agreement regarding an alleged violation of environmental law in which a defendant agrees to perform a wood stove or pellet stove replacement Supplemental Environmental Project, the Administrator shall require the defendant to include in the settlement documents a certification under penalty of law that the defendant would have agreed to perform a comparably valued, alternative project other than a wood stove or pellet stove replacement Supplemental Environmental Project if the Administrator were precluded by law from accepting a wood stove or pellet stove replacement Supplemental Environmental Project. A failure by the Administrator to include this language in such a settlement agreement shall not create a cause of action against the United States under the Clean Air Act or any other law or create a basis for overturning a settlement agreement entered into by the United States.

SEC. 219. ENERGY STAR STANDARDS.

(a) ENERGY STAR.—Section 324A(c) of the Energy Policy and Conservation Act is amended—

(1) in paragraph (6)(B), by striking "and" after the semicolon at the end;

(2) in paragraph (7), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

"(8) in establishing and revising an Energy Star product category, specification, or criterion, require inclusion of developmental products planned for sale within 2 years in the testing or evaluation of products proposed for purposes of such establishment or revision;

"(9) not later than 18 months after the date of enactment of this paragraph, establish and implement a rating system for products identified as Energy Star products pursuant to this section to provide consumers with the most helpful information on the relative energy efficiency of those products, unless the Administrator and the Secretary communicate to Congress that establishing such a system would diminish the value of the Energy Star brand to consumers;

"(10)(A) review the Energy Star product criteria for the 10 products in each product category with the greatest energy consumption at least once every 3 years; and

"(B) based on the review, update and publish the Energy Star product criteria for each such category, as necessary; and

"(11) require periodic verification of compliance with the Energy Star product criteria by products identified as Energy Star products pursuant to this section, including—

"(A) purchase and testing of products from the market; or

"(B) other appropriate testing and compliance approaches.".

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out the amendments made by this section $5,000,000 for fiscal year 2010 and for each fiscal year thereafter.

Subtitle C—Transportation Efficiency

SEC. 221. EMISSIONS STANDARDS.

Title VIII of the Clean Air Act, as added by section 331 of this Act, is amended by inserting after part A the following new part:

"PART B—MOBILE SOURCES

"SEC. 821. GREENHOUSE GAS EMISSION STANDARDS FOR MOBILE SOURCES.

"(a) NEW MOTOR VEHICLES AND NEW MOTOR VEHICLE ENGINES.—(1) Pursuant to section 202(a)(1), by December 31, 2010, the Administrator shall promulgate standards applicable to emissions of greenhouse gases from new heavy-duty motor vehicles or new heavy-duty motor vehicle engines, excluding such motor vehicles covered by the Tier II standards (as established by the Administrator as of the date of the enactment of this section). The Administrator may revise these standards from time to time.

"(2) Regulations issued under section 202(a)(1) applicable to emissions of greenhouse gases from new heavy-duty motor vehicles or new heavy-duty motor vehicle engines, excluding such motor vehicles covered by the Tier II standards (as established by the Administrator as of the date of the enactment of this section), shall contain standards that reflect the greatest degree of emissions reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology. Any such regulations shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, and, at a minimum, shall apply for a period no less than 3 model years beginning no earlier than the model year commencing 4 years after such regulations are promulgated.

"(3) Regulations issued under section 202(a)(1) applicable to emissions of greenhouse gases from new heavy-duty motor vehicles or new heavy-duty motor vehicle engines, excluding such motor vehicles covered by the Tier II standards (as established by the Administrator as of the date of the enactment of this section), shall supersede and satisfy any and all of the rulemaking and compliance requirements of section 32902(k) of title 49, United States Code.

"(4) Other than as specifically set forth in paragraph (3) of this subsection, nothing in this section shall affect or otherwise increase or diminish the authority of the Secretary of Transportation to adopt regulations to improve the overall fuel efficiency of the commercial goods movement system.

"(b) NONROAD VEHICLES AND ENGINES.—(1) Pursuant to section 213(a)(4) and (5), the Administrator shall identify those classes or categories of new nonroad vehicles or engines, or combinations of such classes or categories, that, in the judgment of the Administrator, both contribute significantly to the total emissions of greenhouse

gases from nonroad engines and vehicles, and provide the greatest potential for significant and cost-effective reductions in emissions of greenhouse gases. The Administrator shall promulgate standards applicable to emissions of greenhouse gases from these new nonroad engines or vehicles by December 31, 2012. The Administrator shall also promulgate standards applicable to emissions of greenhouse gases for such other classes and categories of new nonroad vehicles and engines as the Administrator determines appropriate and in the timeframe the Administrator determines appropriate. The Administrator shall base such determination, among other factors, on the relative contribution of greenhouse gas emissions, and the costs for achieving reductions, from such classes or categories of new nonroad engines and vehicles. The Administrator may revise these standards from time to time.

"(2) Standards under section 213(a)(4) and (5) applicable to emissions of greenhouse gases from those classes or categories of new nonroad engines or vehicles identified in the first sentence of paragraph (1) of this subsection, shall achieve the greatest degree of emissions reduction achievable based on the application of technology which the Administrator determines will be available at the time such standards take effect, taking into consideration cost, energy, and safety factors associated with the application of such technology. Any such regulations shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology.

"(3) For purposes of this section and standards under section 213(a)(4) or (5) applicable to emissions of greenhouse gases, the term 'nonroad engines and vehicles' shall include non-internal combustion engines and the vehicles these engines power (such as electric engines and electric vehicles), for those non-internal combustion engines and vehicles which would be in the same category and have the same uses as nonroad engines and vehicles that are powered by internal combustion engines.

"(c) AIRCRAFT AND AIRCRAFT ENGINES.—

"(1) Pursuant to section 231(a), the Administrator shall promulgate standards applicable to emissions of greenhouse gases from new aircraft and new engines used in aircraft by December 31, 2012. Notwithstanding any requirement in section 231(a), the Administrator, in consultation with the Administrator of the Federal Aviation Administration, shall also promulgate standards applicable to emissions of greenhouse gases from other classes and categories of aircraft and aircraft engines for such classes and categories as the Administrator determines appropriate and in the timeframe the Administrator determines appropriate. The Administrator may revise these standards from time to time.

"(2) Standards under section 231(a) applicable to emissions of greenhouse gases from new aircraft and new engines used in aircraft, and any later revisions or additional standards, shall achieve the greatest degree of emissions reduction achievable based on the application of technology which the Administrator determines will be available at the time such standards take effect, taking into consideration cost, energy, and safety factors associated with the application of such technology. Any such standards shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology.

"(d) AVERAGING, BANKING, AND TRADING OF EMISSIONS CREDITS.—In establishing standards applicable to emissions of greenhouse gases pursuant to this section and sections 202(a), 213(a)(4) and (5), and 231(a), the Administrator may establish provisions for averaging, banking, and trading of greenhouse gas emissions credits within or across classes or categories of motor vehicles and motor vehicle engines, nonroad vehicles and engines (including marine vessels), and aircraft and aircraft engines, to the extent the Administrator determines appropriate and considering the factors appropriate in setting standards under those sections. Such provisions may include reasonable and appropriate provisions concerning generation, banking, trading, duration, and use of credits.

"(e) REPORTS.—The Administrator shall, from time to time, submit a report to Congress that projects the amount of greenhouse gas emissions from the transportation sector, including transportation fuels, for the years 2030 and 2050, based on the standards adopted under this section.

"(f) GREENHOUSE GASES.—Notwithstanding the provisions of section 711, hydrofluorocarbons shall be considered a greenhouse gas for purposes of this section.".

SEC. 222. GREENHOUSE GAS EMISSIONS REDUCTIONS THROUGH TRANSPORTATION EFFICIENCY.

Title VIII of the Clean Air Act, as added by section 331 of this Act, is further amended by inserting after part C the following new part:

"PART D—PLANNING REQUIREMENTS

"SEC. 841. GREENHOUSE GAS EMISSIONS REDUCTIONS THROUGH TRANSPORTATION EFFICIENCY.

"(a) IN GENERAL.—Each State shall—

"(1) not later than 3 years after the date of enactment of this section, submit to the Administrator goals for transportation-related greenhouse gas emissions reductions, which goals shall be reasonably commensurate with the targets for overall greenhouse gas emissions reduction established by this Act; and

"(2) as part of each transportation plan or transportation improvement program developed under title 23 or title 49, United States Code, ensure that a plan to achieve such goals, or an updated version of such a plan, is submitted to the Administrator and to the Secretary of Transportation (in this section referred to as the 'Secretary') by each metropolitan planning organization in the State for an area with a population exceeding 200,000.

"(b) MODELS AND METHODOLOGIES.—

"(1) IN GENERAL.—The Administrator shall promulgate regulations to establish standards for use in developing goals, plans, and strategies under this section and for monitoring progress toward such goals. Such standards shall include—

"(A) data collection techniques for assessing State and regional transportation-related greenhouse gas emissions;

"(B) methodologies for determining transportation-related greenhouse gas emissions baselines;

"(C) models and methodologies for scenario analysis; and

"(D) models and methodologies for estimating transportation-related greenhouse gas emissions reductions from the strategies considered under this section.

Such regulations may approve or improve existing models and methodologies

"(2) TIMING.—The Administrator shall—

"(A) publish proposed regulations under paragraph (1) not later than 1 year after the date of enactment of this section; and

"(B) promulgate final regulations under paragraph (1) not later than 2 years after such date of enactment.

"(3) ASSESSMENT.—At least every 6 years after promulgating final regulations under paragraph (1), the Administrator, in coordination with the Secretary, shall assess current and projected progress in reducing transportation-related greenhouse gas emissions. The assessment shall examine the contributions to emissions reductions attributable to improvements in vehicle efficiency, greenhouse gas performance of transportation fuels, and increased efficiency in utilizing transportation systems.

"(c) GREENHOUSE GAS REDUCTION GOALS.—

"(1) CONSULTATION.—Each State shall develop the goals referred to in subsection (a)(1)—

"(A) in concurrence with State agencies responsible for air quality and transportation;

"(B) in consultation with each metropolitan planning organization for an area in the State with a population exceeding 200,000 and applicable local air quality and transportation agencies; and

"(C) with public involvement, including public comment periods and meetings.

"(2) PERIOD.—The goals referred to in subsection (a)(1) shall be for 4-, 10-, and 20-year periods.

"(3) TARGETS; DESIGNATED YEAR.—The goals referred to in subsection (a)(1) shall establish targets to reduce transportation-related greenhouse gas emissions in the covered area. The targets shall be designed to ensure that the levels of such emissions stabilize and decrease after a designated year. The State shall consider designating 2010 as such designated year.

"(4) COVERED AREA.—The goals referred to in subsection (a)(1)—

"(A) shall be established on a statewide basis;

"(B) shall be established for each metropolitan planning organization in the State for an area with a population exceeding 200,000; and

"(C) may be established on a voluntary basis, in accordance with the provisions of this section, for any metropolitan planning organization not described in subparagraph (B).

"(5) REVISED GOALS.—Every 4 years, each State shall update and revise, as appropriate, the goals referred to in subsection (a)(1).

"(d) PLANNING.—A plan submitted under subsection (a)(2) shall—

"(1) be based upon the models and methodologies established by the Administrator under subsection (b);

"(2) use transportation and land use scenario analysis to address transportation-related greenhouse gas emissions and economic development impacts; and

"(3) be developed—

"(A) with public involvement, including public comment periods and meetings that provide opportunities for comment from a variety of stakeholders based on age, race, income, and disability;

"(B) with regional coordination, including with respect to—

"(i) metropolitan planning organizations;

"(ii) the localities comprising the metropolitan planning organization;

"(iii) the State in which the metropolitan planning organization is located; and

"(iv) air quality, environmental health, and transportation agencies for the State and region involved; and

"(C) in consultation with the State and local housing, public health, economic development, land use, environment, and public transportation agencies.

"(e) STRATEGIES.—In developing goals under subsection (a)(1) and a plan under subsection (a)(2), the State or metropolitan planning organization, as applicable, shall consider transportation and land use planning strategies to reduce transportation-related greenhouse gas emissions, including the following:

"(1) Efforts to increase or improve public transportation, including—

"(A) new public transportation systems, including new commuter rail systems;

"(B) expansion of existing public transportation systems;

"(C) employer-based subsidies;

"(D) cleaner locomotive technologies;

"(E) quality of service improvements, including improved frequency of service; and

"(F) use of transit buses that are powered by alternative fuels.

"(2) Updates to zoning and other land use regulations and plans to support development that—

"(A) coordinates transportation and land use planning;

"(B) focuses future growth close to existing and planned job centers and public facilities;

"(C) uses existing infrastructure;

"(D) promotes walking, bicycling, and public transportation use; and

"(E) mixes land uses such as housing, retail, and schools.

"(3) Implementation of a policy (referred to as a 'complete streets policy') that—

"(A) ensures adequate accommodation of all users of transportation systems, including pedestrians, bicyclists, public transportation users, motorists, children, the elderly, and individuals with disabilities; and

"(B) adequately addresses the safety and convenience of all users of the transportation system.

"(4) Construction of bicycle and pedestrian infrastructure facilities, including facilities that improve the connections with networks that provide access to human services, employment, schools, and retail.

"(5) Projects to promote telecommuting, flexible work schedules, or satellite work centers.

"(6) Pricing measures, including tolling, congestion pricing, and pay-as-you-drive insurance.

"(7) Intermodal freight system strategies, including enhanced rail services, short sea shipping, and other strategies.

"(8) Parking policies.

"(9) Intercity rail service, including high speed rail.

"(10) Travel demand management projects.

"(11) Restriction of the use of certain roads, or lanes, by vehicles other than passenger buses and high-occupancy vehicles.

"(12) Reduction of vehicle idling, including idling associated with freight management, construction, transportation, and commuter operations.

"(13) Policies to encourage the use of retrofit technologies and early replacement of vehicles, engines and equipment to reduce transportation-related greenhouse gas emissions from existing mobile sources.

"(14) Other projects that the Administrator finds reduce transportation-related greenhouse gas emissions.

"(f) PUBLIC AVAILABILITY.—The Administrator shall publish, including by posting on the Environmental Protection Agency's website—

"(1) the goals and plans submitted under subsection (a); and

"(2) for each plan submitted under subsection (a)(2), an analysis of the anticipated effects of the plan on greenhouse gas emissions and oil consumption.

"(g) CERTIFICATION.—The Administrator, in consultation with the Secretary, shall certify a State or metropolitan planning organization greenhouse gas reduction plan submitted under subsection (a)(2) if the plan's implementation is likely to meet the corresponding greenhouse gas reduction goal referred to in subsection (a)(1). If the Administrator, in consultation with the Secretary, determines that a submitted plan cannot be certified, the State or metropolitan planning organization shall revise and resubmit the plan within 1 year.

"(h) ENFORCEMENT.—If the Administrator finds that a State has failed to submit goals under subsection (a)(1), has failed to ensure the submission of a plan under subsection (a)(2), or has failed to submit a revised plan under subsection (g), for any area in the State (irrespective of whether the area is a nonattainment area), the Administrator shall impose a prohibition in accordance with section 179(b)(1) applicable to the area within 2 years of such a finding. The Administrator may not impose a prohibition under the preceding sentence, and no action may be brought by the Administrator or any other entity alleging a violation of this section, based on the content or adequacy of a goal or plan submitted under subsection (a)(1) or (a)(2) or failure to achieve the goal submitted under subsection (a)(1).

"(i) COMPETITIVE GRANTS.—

"(1) GRANTS.—The Administrator, in consultation with the Secretary, may award grants to States or metropolitan planning organizations—

"(A) to support activities related to improving data collection, modeling, and monitoring systems to assess transportation-related greenhouse gas emissions and the effects of plans, policies, and strategies referenced in this section;

"(B) for the development of goals and plans to be submitted under sections (a)(1) or (a)(2); and

"(C) to implement plans certified under subsection (g) or elements thereof, provided that each project thus funded includes a measurement and evaluation component that meets the regulations promulgated under subsection (b).

"(2) PRIORITY.—In making grants under paragraph (1)(C), the Administrator shall give priority to applicants based upon—

"(A) the amount of total greenhouse gas emissions to be reduced as a result of implementation of a certified plan, within the covered area, as determined by methods established under subsection (b);

"(B) the amount of per capita greenhouse gas emissions to be reduced as a result of implementation of a certified plan, within the covered area, as determined by methods established under subsection (b);

"(C) the cost effectiveness, in terms of dollars per tons of greenhouse gas reductions, to be achieved as a result of the implementation of a certified plan;

"(D) the potential for both short- and long-term reductions; and

"(E) such other factors as the Administrator determines appropriate.

"(3) AUTHORIZATION OF APPROPRIATIONS.—To carry out this subsection, there are authorized to be appropriated such sums as may be necessary.

"(j) DEFINITIONS.—In this section:

"(1) The term 'metropolitan planning organization' means a metropolitan planning organization, as such term is used in section 176.

"(2) The term 'scenario analysis' means an analysis that is conducted by identifying different trends and making projections based on those trends to develop a range of scenarios and estimates of how each scenario could improve access to goods and services, including access to employment, education, and health care (especially for elderly and economically disadvantaged communities), and could affect rates of—

"(A) vehicle miles traveled;

"(B) vehicle hours traveled;

"(C) use of mobile source fuel by type, including electricity; and

"(D) transportation-related greenhouse gas emissions.

"(k) LAND USE AUTHORITY.—Nothing in this section may be construed to—

"(1) infringe upon the existing authority of State or local governments to plan or control land use; or

"(2) provide or transfer authority over land use to any other entity.".

SEC. 223. SMARTWAY TRANSPORTATION EFFICIENCY PROGRAM.

Part B of title VIII of the Clean Air Act, as added by section 221 of this Act is amended by adding after section 821 the following section:

"SEC. 822. SMARTWAY TRANSPORTATION EFFICIENCY PROGRAM.

"(a) IN GENERAL.—There is established within the Environmental Protection Agency a SmartWay Transport Program to quantify, demonstrate, and promote the benefits of technologies, products, fuels, and operational strategies that reduce petroleum consumption, air pollution, and greenhouse gas emissions from the mobile source sector.

"(b) GENERAL DUTIES.—Under the program established under this section, the Administrator shall carry out each of the following:

"(1) Development of measurement protocols to evaluate the energy consumption and greenhouse gas impacts from technologies and strategies in the mobile source sector, including those for passenger transport and goods movement.

"(2) Development of qualifying thresholds for certifying, verifying, or designating energy-efficient, low-greenhouse gas SmartWay technologies and strategies for each mode of passenger transportation and goods movement.

"(3) Development of partnership and recognition programs to promote best practices and drive demand for energy-efficient, low-greenhouse gas transportation performance.

"(4) Promotion of the availability of, and encouragement of the adoption of, SmartWay certified or verified technologies and strategies, and publication of the availability of financial incentives, such as assistance from loan programs and other Federal and State incentives.

"(c) SMARTWAY TRANSPORT FREIGHT PARTNERSHIP.—The Administrator shall establish a SmartWay Transport Partnership program with shippers and carriers of goods to promote energy-efficient, low-greenhouse gas transportation. In carrying out such partnership, the Administrator shall undertake each of the following:

"(1) Certification of the energy and greenhouse gas performance of participating freight carriers, including those operating rail, trucking, marine, and other goods movement operations.

"(2) Publication of a comprehensive energy and greenhouse gas performance index of freight modes (including rail, trucking, marine, and other modes of transporting goods) and individual freight companies so that shippers can choose to deliver their goods more efficiently.

"(3) Development of tools for—

"(A) carriers to calculate their energy and greenhouse gas performance; and

"(B) shippers to calculate the energy and greenhouse gas impacts of moving their products and to evaluate the relative impacts from transporting their goods by different modes and corporate carriers.

"(4) Provision of recognition opportunities for participating shipper and carrier companies demonstrating advanced practices and achieving superior levels of greenhouse gas performance.

"(d) IMPROVING FREIGHT GREENHOUSE GAS PERFORMANCE DATABASES.—The Administrator shall, in coordination with other appropriate agencies, define and collect data on the physical and operational characteristics of the Nation's truck population, with special emphasis on data related to energy efficiency and greenhouse gas performance to inform the performance index published under subsection (c)(2) of this section, and other means of goods transport as necessary, at least every 5 years.

"(e) ESTABLISHMENT OF FINANCING PROGRAM.—The Administrator shall establish a SmartWay Financing Program to competitively award funding to eligible entities identified by the Administrator in accordance with the program requirements in subsection (g).

"(f) PURPOSE.—Under the SmartWay Financing Program, eligible entities shall—

"(1) use funds awarded by the Administrator to provide flexible loan and lease terms that increase approval rates or lower the costs of loans and leases in accordance with guidance developed by the Administrator; and

"(2) make such loans and leases available to public and private entities for the purpose of adopting low-greenhouse gas technologies or strategies for the mobile source sector that are designated by the Administrator.

"(g) PROGRAM REQUIREMENTS.—The Administrator shall determine program design elements and requirements, including—

"(1) the type of financial mechanism with which to award funding, in the form of grants or contracts;

"(2) the designation of eligible entities to receive funding, including State, tribal, and local governments, regional organizations comprised of governmental units, nonprofit organizations, or for-profit companies;

"(3) criteria for evaluating applications from eligible entities, including anticipated—

"(A) cost-effectiveness of loan or lease program on a metric-ton-of-greenhouse gas-saved-per-dollar basis;

"(B) ability to promote the loan or lease program and associated technologies and strategies to the target audience; and

"(4) reporting requirements for entities that receive awards, including—

"(A) actual cost-effectiveness and greenhouse gas savings from the loan or lease program based on a methodology designated by the Administrator;

"(B) the total number of applications and number of approved applications; and

"(C) terms granted to loan and lease recipients compared to prevailing market practices.

"(h) AUTHORIZATION OF APPROPRIATIONS.—Such sums as necessary are authorized to be appropriated to the Administrator to carry out this section.".

SEC. 224. STATE VEHICLE FLEETS.

Section 507(o) of the Energy Policy Act of 1992 (42 U.S.C. 13257) is amended by adding the following new paragraph at the end thereof:

"(3) The Secretary shall revise the rules under this subsection with respect to the types of alternative fueled vehicles required for compliance with this subsection to ensure those rules are consistent with any guidance issued pursuant to section 303 of this Act.".

Subtitle D—Industrial Energy Efficiency Programs

SEC. 241. INDUSTRIAL PLANT ENERGY EFFICIENCY STANDARDS.

The Secretary of Energy shall continue to support the development of the American National Standards Institute (ANSI) voluntary industrial plant energy efficiency certification program, pending International Standards Organization (ISO) consensus standard 50001, and other related ANSI/ISO standards. In addition, the Department shall undertake complementary activities through the Department of Energy's Industry Technologies Program that support the voluntary implementation of such standards by manufacturing firms. There are authorized to be appropriated to the Secretary such sums as are necessary to carry out these activities. The Secretary shall report to Congress on the status of standards development and plans for further standards development pursuant to this section by not later than 18 months after the date of enactment of this Act, and shall prepare a second such report 18 months thereafter.

SEC. 242. ELECTRIC AND THERMAL WASTE ENERGY RECOVERY AWARD PROGRAM.

(a) ELECTRIC AND THERMAL WASTE ENERGY RECOVERY AWARDS.—The Secretary of Energy shall establish a program to make monetary awards to the owners and operators of new and existing electric energy generation facilities or thermal energy production facilities using fossil or nuclear fuel, to encourage them to use innovative means of recovering any thermal energy that is a potentially useful byproduct of electric power generation or other processes to—

(1) generate additional electric energy; or

(2) make sales of thermal energy not used for electric generation, in the form of steam, hot water, chilled water, or desiccant regeneration, or for other commercially valid purposes.

(b) AMOUNT OF AWARDS.—

(1) ELIGIBILITY.—Awards shall be made under subsection (a) only for the use of innovative means that achieve net energy efficiency at the facility concerned significantly greater than the current standard technology in use at similar facilities.

(2) AMOUNT.—The amount of an award made under subsection (a) shall equal an amount up to the value of 25 percent of the energy projected to be recovered or generated during the first 5 years of operation of the facility using the innovative energy recovery method, or such lesser amount that the Secretary determines to be the minimum amount that can cost-effectively stimulate such innovation.

(3) LIMITATION.—No person may receive an award under this section if a grant under the waste energy incentive grant program under section 373 of the

Energy Policy and Conservation Act (42 U.S.C. 6343) is made for the same energy savings resulting from the same innovative method.

(c) REGULATORY STATUS.—The Secretary of Energy shall—

(1) assist State regulatory commissions to identify and make changes in State regulatory programs for electric utilities to provide appropriate regulatory status for thermal energy byproduct businesses of regulated electric utilities to encourage those utilities to enter businesses making the sales referred to in subsection (a)(2); and

(2) encourage self-regulated utilities to enter businesses making the sales referred to in subsection (a)(2).

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy such sums as are necessary for the purposes of this section.

SEC. 243. CLARIFYING ELECTION OF WASTE HEAT RECOVERY FINANCIAL INCENTIVES.

Section 373(e) of the Energy Policy and Conservation Act (42 U.S.C. 6343(e)) is amended—

(1) by striking "that qualifies for" and inserting "who elects to claim"; and

(2) by inserting "from that project" after "for waste heat recovery".

SEC. 244. MOTOR MARKET ASSESSMENT AND COMMERCIAL AWARENESS PROGRAM.

(a) FINDINGS.—Congress finds that—

(1) electric motor systems account for about half of the electricity used in the United States;

(2) electric motor energy use is determined by both the efficiency of the motor and the system in which the motor operates;

(3) Federal Government research on motor end use and efficiency opportunities is more than a decade old; and

(4) the Census Bureau has discontinued collection of data on motor and generator importation, manufacture, shipment, and sales.

(b) DEFINITIONS.—In this section:

(1) DEPARTMENT.—The term "Department" means the Department of Energy.

(2) INTERESTED PARTIES.—The term "interested parties" includes—

(A) trade associations;

(B) motor manufacturers;

(C) motor end users;

(D) electric utilities; and

(E) individuals and entities that conduct energy efficiency programs.

(3) SECRETARY.—The term "Secretary" means the Secretary of Energy, in consultation with interested parties.

(c) ASSESSMENT.—The Secretary shall conduct an assessment of electric motors and the electric motor market in the United States that shall—

(1) include important subsectors of the industrial and commercial electric motor market (as determined by the Secretary), including—

(A) the stock of motors and motor-driven equipment;

(B) efficiency categories of the motor population; and

(C) motor systems that use drives, servos, and other control technologies;

(2) characterize and estimate the opportunities for improvement in the energy efficiency of motor systems by market segment, including opportunities for—

(A) expanded use of drives, servos, and other control technologies;

(B) expanded use of process control, pumps, compressors, fans or blowers, and material handling components; and

(C) substitution of existing motor designs with existing and future advanced motor designs, including electronically commutated permanent magnet, interior permanent magnet, and switched reluctance motors; and

(3) develop an updated profile of motor system purchase and maintenance practices, including surveying the number of companies that have motor purchase and repair specifications, by company size, number of employees, and sales.

(d) RECOMMENDATIONS; UPDATE.—Based on the assessment conducted under subsection (c), the Secretary shall—

(1) develop—

(A) recommendations to update the detailed motor profile on a periodic basis;

(B) methods to estimate the energy savings and market penetration that is attributable to the Save Energy Now Program of the Department; and

(C) recommendations for the Director of the Census Bureau on market surveys that should be undertaken in support of the motor system activities of the Department; and

(2) prepare an update to the Motor Master+ program of the Department.

(e) PROGRAM.—Based on the assessment, recommendations, and update required under subsections (c) and (d), the Secretary shall establish a proactive, national program targeted at motor end-users and delivered in cooperation with interested parties to increase awareness of—

(1) the energy and cost-saving opportunities in commercial and industrial facilities using higher efficiency electric motors;

(2) improvements in motor system procurement and management procedures in the selection of higher efficiency electric motors and motor-system components, including drives, controls, and driven equipment; and

(3) criteria for making decisions for new, replacement, or repair motor and motor system components.

SEC. 245. MOTOR EFFICIENCY REBATE PROGRAM.

(a) IN GENERAL.—Part C of title III of the Energy Policy and Conservation Act (42 U.S.C. 6311 et seq.) is amended by adding at the end the following:

"SEC. 347. MOTOR EFFICIENCY REBATE PROGRAM.

"(a) ESTABLISHMENT.—Not later than January 1, 2010, in accordance with subsection (b), the Secretary shall establish a program to provide rebates for expenditures made by entities—

"(1) for the purchase and installation of a new electric motor that has a nominal full load efficiency that is not less than the nominal full load efficiency as defined in—

"(A) table 12–12 of NEMA Standards Publication MG 1–2006 for random wound motors rated 600 volts or lower; or

"(B) table 12–13 of NEMA Standards Publication MG 1–2006 for form wound motors rated 5000 volts or lower; and

"(2) to replace an installed motor of the entity the specifications of which are established by the Secretary by a date that is not later than 90 days after the date of enactment of this section.

"(b) REQUIREMENTS.—

"(1) APPLICATION.—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including—

"(A) demonstrated evidence that the entity purchased an electric motor described in subsection (a)(1) to replace an installed motor described in subsection (a)(2);

"(B) demonstrated evidence that the entity—

"(i) removed the installed motor of the entity from service; and

"(ii) properly disposed the installed motor of the entity; and

"(C) the physical nameplate of the installed motor of the entity.

"(2) AUTHORIZED AMOUNT OF REBATE.—The Secretary may provide to an entity that meets each requirement under paragraph (1) a rebate the amount of which shall be equal to the product obtained by multiplying—

"(A) the nameplate horsepower of the electric motor purchased by the entity in accordance with subsection (a)(1); and

"(B) $25.00.

"(3) PAYMENTS TO DISTRIBUTORS OF QUALIFYING ELECTRIC MOTORS.—To assist in the payment for expenses relating to processing and motor core disposal costs, the Secretary shall provide to the distributor of an electric motor described in subsection (a)(1), the purchaser of which received a rebate under this section, an amount equal to the product obtained by multiplying—

"(A) the nameplate horsepower of the electric motor; and

"(B) $5.00.

"(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section, to remain available until expended—

"(1) $80,000,000 for fiscal year 2011;

"(2) $75,000,000 for fiscal year 2012;

"(3) $70,000,000 for fiscal year 2013;

"(4) $65,000,000 for fiscal year 2014; and

"(5) $60,000,000 for fiscal year 2015.".

(b) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by adding at the end of the items relating to part C of title III the following:

"Sec. 347. Motor efficiency rebate program.".

Subtitle E—Improvements in Energy Savings Performance Contracting

SEC. 251. ENERGY SAVINGS PERFORMANCE CONTRACTS.

(a) COMPETITION REQUIREMENTS FOR TASK OR DELIVERY ORDERS UNDER ENERGY SAVINGS PERFORMANCE CONTRACTS.—

(1) COMPETITION REQUIREMENTS.—Subsection (a) of section 801 of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)) is amended by adding at the end the following paragraph:

"(3)(A) The head of a Federal agency may issue a task or delivery order under an energy savings performance contract by—

"(i) notifying all contractors that have received an award under such contract that the agency proposes to discuss energy savings performance services for some or all of its facilities, soliciting an expression of interest in performing site surveys or investigations and feasibility designs and studies and the submission of qualifications from such contractors, and including in such notice summary information concerning energy use for any facilities that the agency has specific interest in including in such contract;

"(ii) reviewing all expressions of interest and qualifications submitted pursuant to the notice under clause (i);

"(iii) selecting two or more contractors (from among those reviewed under clause (ii)) to conduct discussions concerning the contractors' respective qualifications to implement potential energy conservation measures, including requesting references demonstrating experience on similar efforts and the resulting energy savings of such similar efforts;

"(iv) selecting and authorizing—

"(I) more than one contractor (from among those selected under clause (iii)) to conduct site surveys, investigations, feasibility designs and studies or similar assessments for the energy savings performance contract services (or for discrete portions of such services), for the purpose of allowing each such contractor to submit a firm, fixed-price proposal to implement specific energy conservation measures; or

"(II) one contractor (from among those selected under clause (iii)) to conduct a site survey, investigation, a feasibility design and study or similar for the purpose of allowing the contractor to submit a firm, fixed-price proposal to implement specific energy conservation measures;

"(v) negotiating a task or delivery order for energy savings performance contracting services with the contractor or contractors selected under clause (iv) based on the energy conservation measures identified; and

"(vi) issuing a task or delivery order for energy savings performance contracting services to such contractor or contractors.

"(B) The issuance of a task or delivery order for energy savings performance contracting services pursuant to subparagraph (A) is deemed to satisfy the task and delivery order competition requirements in section 2304c(d) of title 10, United States Code, and section 303J(d) of the Federal Property and Administrative Services Act of 1949 (41 U.S.C. 253j(d)).

"(C) The Secretary may issue guidance as necessary to agencies issuing task or delivery orders pursuant to subparagraph (A).".

(2) EFFECTIVE DATE.—The amendment made by paragraph (1) is inapplicable to task or delivery orders issued before the date of enactment of this section.

(b) INCLUSION OF THERMAL RENEWABLE ENERGY.—Section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852) is amended—

(1) in subsection (a), by striking "electric"; and

(2) in subsection (b)(2), by inserting "or thermal" after "means electric".

(c) CREDIT FOR RENEWABLE ENERGY PRODUCED AND USED ON SITE.—Subsection (c) of section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852) is amended to read as follows:

"(c) CALCULATION.—Renewable energy produced at a Federal facility, on Federal lands, or on Indian lands (as defined in title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.)) shall be calculated separately from renewable energy consumed at a Federal facility, and each may be used to comply with the consumption requirement under subsection (a).".

(d) FINANCING FLEXIBILITY.—Section 801(a)(2)(E) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)(E)) is amended by striking "In" and inserting "Notwithstanding any other provision of law, in".

Subtitle F—Public Institutions

SEC. 261. PUBLIC INSTITUTIONS.

Section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371h–1) is amended—

(1) in subsection (a)(5), by striking "or a designee" and inserting "a not-for-profit hospital or not-for-profit inpatient health care facility, or a designated agent";

(2) in subsection (c)(1), by striking subparagraph (C);

(3) in subsection (f)(3)(A), by striking "$1,000,000" and inserting "$2,500,000"; and

(4) in subsection (i)(1), by striking "$250,000,000 for each of fiscal years 2009 through 2013" and inserting "$250,000,000 for each of fiscal years 2010 through 2015".

SEC. 262. COMMUNITY ENERGY EFFICIENCY FLEXIBILITY.

Section 545(b)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17155(b)(3)) is amended—

(1) by striking "Indian tribe may use" and all that follows through "for administrative expenses" and inserting "Indian tribe may use for administrative expenses";

(2) by striking subparagraphs (B) and (C);

(3) by redesignating the remaining clauses (i) and (ii) as subparagraphs (A) and (B), respectively and adjusting the margin of those subparagraphs accordingly; and

(4) by striking the semicolon at the end and inserting a period.

SEC. 263. SMALL COMMUNITY JOINT PARTICIPATION.

(a) Section 541(3)(A) of the Energy Independence and Security Act of 2007 is amended in clause (i) by striking "and" at the end of subclause (II), in clause (ii) by striking the period at the end of subclause (II) and inserting "; or", and by inserting the following new clause (iii):

"(iii) a group of adjacent, contiguous, or geographically proximate units of local government that reach agreement to act jointly for purposes of this section and that represent a combined population of not less than 35,000.".

(b) Section 541(3)(B) of the Energy Independence and Security Act of 2007 is amended in clause (i) by striking "or", in clause (ii) by striking the period at the end and inserting "; or", and by inserting the following new clause (iii):

"(iii) a group of adjacent, contiguous, or geographically proximate units of local government that reach agreement to act jointly for purposes of this section and that represent a combined population of not less than 50,000.".

SEC. 264. LOW INCOME COMMUNITY ENERGY EFFICIENCY PROGRAM.

(a) IN GENERAL.—The Secretary of Energy is authorized to make grants to private, nonprofit, mission-driven community development organizations including community development corporations and community development financial institutions to provide financing to businesses and projects that improve energy efficiency; identify and develop alternative, renewable, and distributed energy supplies; provide technical assistance and promote job and business opportunities for low-income residents; and increase energy conservation in low income rural and urban communities.

(b) GRANTS.—The purpose of such grants is to increase the flow of capital and benefits to low income communities, minority-owned and woman-owned businesses and entrepreneurs and other projects and activities located in low income communities in order to reduce environmental degradation, foster energy conservation and efficiency and create job and business opportunities for local residents. The Secretary may make grants on a competitive basis for—

(1) investments that develop alternative, renewable, and distributed energy supplies;

(2) capitalizing loan funds that lend to energy efficiency projects and energy conservation programs;

(3) technical assistance to plan, develop, and manage an energy efficiency financing program; and

(4) technical and financial assistance to assist small-scale businesses and private entities develop new renewable and distributed sources of power or combined heat and power generation.

(c) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this section there is authorized to be appropriated $50,000,000 for each of the fiscal years 2010 through 2015.

Subtitle G—Miscellaneous

SEC. 271. ENERGY EFFICIENT INFORMATION AND COMMUNICATIONS TECHNOLOGIES.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is amended to read as follows:

"SEC. 543. ENERGY EFFICIENT INFORMATION AND COMMUNICATIONS TECHNOLOGIES.

"(a) IN GENERAL.—Not later than 1 year after the date of enactment of the American Clean Energy and Security Act of 2009, each Federal agency shall collaborate with the Director of the Office of Management and Budget (referred to in this section as the 'Director') to create an implementation strategy, including best practices and measurement and verification techniques, for the purchase and use of energy efficient information and communications technologies and practices. Wherever possible, existing standards, specifications, performance metrics, and best management practices that have been or are being developed in open collaboration and with broad stakeholder input and review should be incorporated. In addition, agency strategies shall be flexible, cost-effective, and based on the specific operating requirements and statutory mission of each agency.

"(b) ENERGY EFFICIENT INFORMATION AND COMMUNICATIONS TECHNOLOGIES.—In developing an implementation strategy, each agency shall—

"(1) consider information and communications technologies and infrastructure, including, but not limited to, advanced metering infrastructure, information and communications technology services and products, efficient data center strategies, applications modernization and rationalization, building systems energy efficiency, and telework; and

"(2) ensure that agencies are eligible to realize the savings and rewards brought about through increased efficiencies.

"(c) PERFORMANCE GOALS.—Not later than 6 months after the date of enactment of the American Clean Energy and Security Act of 2009, the Director shall establish performance goals for evaluating the efforts of the agencies in improving the maintenance, purchase and use of energy efficiency of information and communications technology systems. These performance goals should measure information technology costs over a specific time horizon (3 to 5 years), providing a complete picture of all costs, including energy.

"(d) REPORT.—Not later than 18 months after the date of enactment of the American Clean Energy and Security Act of 2009, and annually thereafter, the Director shall submit a report to Congress on—

"(1) the progress of each agency in reducing energy use through its implementation strategy; and

"(2) new and emerging technologies that would help achieve increased energy efficiency.".

SEC. 272. NATIONAL ENERGY EFFICIENCY GOALS.

(a) GOALS.—The energy efficiency goals of the United States are—

(1) to achieve an improvement in the overall energy productivity of the United States (measured in gross domestic product per unit of energy input) of at least 2.5 percent per year by the year 2012; and

(2) to maintain that annual rate of improvement each year through 2030.

(b) STRATEGIC PLAN.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy (referred to in this section as the "Secretary"), in cooperation with the Administrator and the heads of other appropriate Federal agencies, shall develop a strategic plan to achieve the national goals for improvement in energy productivity established under subsection (a).

(2) PUBLIC INPUT AND COMMENT.—The Secretary shall develop the plan in a manner that provides appropriate opportunities for public input and comment.

(c) PLAN CONTENTS.—The strategic plan shall—

(1) identify future regulatory, funding, and policy priorities that would assist the United States in meeting the national goals;

(2) include energy savings estimates for each sector; and

(3) include data collection methodologies and compilations used to establish baseline and energy savings data.

(d) PLAN UPDATES.—

(1) IN GENERAL.—The Secretary shall—

(A) update the strategic plan biennially; and

(B) include the updated strategic plan in the national energy policy plan required by section 801 of the Department of Energy Organization Act (42 U.S.C. 7321).

(2) CONTENTS.—In updating the plan, the Secretary shall—

(A) report on progress made toward implementing efficiency policies to achieve the national goals established under subsection (a); and

(B) verify, to the maximum extent practicable, energy savings resulting from the policies.

(e) REPORT TO CONGRESS AND THE PUBLIC.—The Secretary shall submit to Congress, and make available to the public, the initial strategic plan developed under subsection (b) and each updated plan.

SEC. 273. AFFILIATED ISLAND ENERGY INDEPENDENCE TEAM.

(a) DEFINITIONS.—In this section:

(1) AFFILIATED ISLAND.—The term "affiliated island" means—

(A) the Commonwealth of Puerto Rico;

(B) Guam;

(C) American Samoa;

(D) the Commonwealth of the Northern Mariana Islands;

(E) the Federated States of Micronesia;

(F) the Republic of the Marshall Islands;

(G) the Republic of Palau; and

(H) the United States Virgin Islands.

(2) SECRETARY.—The term "Secretary" means the Secretary of Energy (acting through the Assistant Secretary of Energy Efficiency and Renewable Energy), in consultation with the Secretary of the Interior and the Secretary of State.

(3) TEAM.—The term "team" means the team established by the Secretary under subsection (b).

(b) ESTABLISHMENT.—As soon as practicable after the date of enactment of this Act, the Secretary shall assemble a team of technical, policy, and financial experts to address the energy needs of each affiliated island—

(1) to reduce the reliance and expenditure of each affiliated island on imported fossil fuels;

(2) to increase the use by each affiliated island of indigenous, nonfossil fuel energy sources;

(3) to improve the performance of the energy infrastructure of the affiliated island through projects—

(A) to improve the energy efficiency of power generation, transmission, and distribution; and

(B) to increase consumer energy efficiency;

(4) to improve the performance of the energy infrastructure of each affiliated island through enhanced planning, education, and training;

(5) to adopt research-based and public-private partnership-based approaches as appropriate;

(6) to stimulate economic development and job creation; and

(7) to enhance the engagement by the Federal Government in international efforts to address island energy needs.

(c) DUTIES OF TEAM.—

(1) ENERGY ACTION PLANS.—

(A) IN GENERAL.—In accordance with subparagraph (B), the team shall provide technical, programmatic, and financial assistance to each utility of each affiliated island, and the government of each affiliated island, as appropriate, to develop and implement an energy Action Plan for each affiliated island to reduce the reliance of each affiliated island on imported fossil fuels through increased efficiency and use of indigenous clean-energy resources.

(B) REQUIREMENTS.—Each Action Plan described in subparagraph (A) for each affiliated island shall require and provide for—

(i) the conduct of 1 or more studies to assess opportunities to reduce fossil fuel use through—

(I) the improvement of the energy efficiency of the affiliated island; and

(II) the increased use by the affiliated island of indigenous clean-energy resources;

(ii) the identification and implementation of the most cost-effective strategies and projects to reduce the dependence of the affiliated island on fossil fuels;

(iii) the promotion of education and training activities to improve the capacity of the local utilities of the affiliated island, and the government of the affiliated island, as appropriate, to plan for, maintain, and operate the energy infrastructure of the affiliated island through the use of local or regional institutions, as appropriate;

(iv) the coordination of the activities described in clause (iii) to leverage the expertise and resources of international entities, the Department of Energy, the Department of the Interior, and the regional utilities of the affiliated island;

(v) the identification, and development, as appropriate, of research-based and private-public, partnership approaches to implement the Action Plan; and

(vi) any other component that the Secretary determines to be necessary to reduce successfully the use by each affiliated island of fossil fuels.

(2) REPORTS TO SECRETARY.—Not later than 1 year after the date on which the Secretary establishes the team and biennially thereafter, the team shall submit to the Secretary a report that contains a description of the progress of each affiliated island in—

(A) implementing the Action Plan of the affiliated island developed under paragraph (1)(A); and

(B) reducing the reliance of the affiliated island on fossil fuels.

(d) USE OF REGIONAL UTILITY ORGANIZATIONS.—To provide expertise to affiliated islands to assist the affiliated islands in meeting the purposes of this section, the Secretary shall consider—

(1) including regional utility organizations in the establishment of the team; and

(2) providing assistance through regional utility organizations.

(e) ANNUAL REPORTS TO CONGRESS.—Not later than 30 days after the date on which the Secretary receives a report submitted by the team under subsection (c)(2), the Secretary shall submit to the appropriate committees of Congress a report that contains a summary of the report of the team.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 274. PRODUCT CARBON DISCLOSURE PROGRAM.

(a) EPA STUDY.—The Administrator shall conduct a study to determine the feasibility of establishing a national program for measuring, reporting, publicly disclosing, and labeling products or materials sold in the United States for their carbon content, and shall, not later than 18 months after the date of enactment of this Act, transmit a report to Congress which shall include the following:

(1) A determination of whether a national product carbon disclosure program and labeling program would be effective in achieving the intended goals of achieving greenhouse gas reductions and an examination of existing programs globally and their strengths and weaknesses.

(2) Criteria for identifying and prioritizing sectors and products and processes that should be covered in such program or programs.

(3) An identification of products, processes, or sectors whose inclusion could have a substantial carbon impact (prioritizing industrial products such as iron and steel, aluminum, cement, chemicals, and paper products, and also including food, beverage, hygiene, cleaning, household cleaners, construction, metals, clothing, semiconductor, and consumer electronics).

(4) Suggested methodology and protocols for measuring the carbon content of the products across the entire carbon lifecycle of such products for use in a carbon disclosure program and labeling program.

(5) A review of existing greenhouse gas product accounting standards, methodologies, and practices including the Greenhouse Gas Protocol, ISO 14040/44, ISO 14067, and Publically Available Specification 2050, and including a review of the strengths and weaknesses of each.

(6) A survey of secondary databases including the Manufacturing Energy Consumption Survey and evaluate the quality of data for use in a product carbon disclosure program and product carbon labeling program and an identification of gaps in the data relative to the potential purposes of a national product carbon disclosure program and product carbon labeling program and development of recommendations for addressing these data gaps.

(7) An assessment of the utility of comparing products and the appropriateness of product carbon standards.

(8) An evaluation of the information needed on a label for clear and accurate communication, including what pieces of quantitative and qualitative information needs to be disclosed.

(9) An evaluation of the appropriate boundaries of the carbon lifecycle analysis for different sectors and products.

(10) An analysis of whether default values should be developed for products whose producer does not participate in the program or does not have data to

support a disclosure or label and determine best ways to develop such default values.

(11) A recommendation of certification and verification options necessary to assure the quality of the information and avoid greenwashing or the use of insubstantial or meaningless environmental claims to promote a product.

(12) An assessment of options for educating consumers about product carbon content and the product carbon disclosure program and product carbon labeling program.

(13) An analysis of the costs and timelines associated with establishing a national product carbon disclosure program and product carbon labeling program, including options for a phased approach. Costs should include those for businesses associated with the measurement of carbon footprints and those associated with creating a product carbon label and managing and operating a product carbon labeling program, and options for minimizing these costs.

(14) An evaluation of incentives (such as financial incentives, brand reputation, and brand loyalty) to determine whether reductions in emissions can be accelerated through encouraging more efficient manufacturing or by encouraging preferences for lower-emissions products to substitute for higher-emissions products whose level of performance is no better.

(b) DEVELOPMENT OF NATIONAL CARBON DISCLOSURE PROGRAM.—Upon conclusion of the study, and not more than 36 months after the date of enactment of this Act, the Administrator shall establish a national product carbon disclosure program, participation in which shall be voluntary, and which may involve a product carbon label with broad applicability to the wholesale and consumer markets to enable and encourage knowledge about carbon content by producers and consumers and to inform efforts to reduce energy consumption (carbon dioxide equivalent emissions) nationwide. In developing such a program, the Administrator shall—

(1) consider the results of the study conducted under subsection (a);

(2) consider existing and planned programs and proposals and measurement standards (including the Publicly Available Specification 2050, standards to be developed by the World Resource Institute/World Business Council for Sustainable Development, the International Standards Organization, and the bill AB19 pending in the California legislature);

(3) consider the compatibility of a national product carbon disclosure program with existing programs;

(4) utilize incentives and other means to spur the adoption of product carbon disclosure and product carbon labeling;

(5) develop protocols and parameters for a product carbon disclosure program, including a methodology and formula for assessing, verifying, and potentially labeling a product's greenhouse gas content, and for data quality requirements to allow for product comparison;

(6) create a means to—

(A) document best practices;

(B) ensure clarity and consistency;

(C) work with suppliers, manufacturers, and retailers to encourage participation;

(D) ensure that protocols are consistent and comparable across like products; and

(E) evaluate the effectiveness of the program;

(7) make publicly available information on product carbon content to ensure transparency;

(8) provide for public outreach, including a consumer education program to increase awareness;

(9) develop training and education programs to help businesses learn how to measure and communicate their carbon footprint and easy tools and templates for businesses to use to reduce cost and time to measure their products' carbon lifecycle;

(10) consult with the Secretary of Energy, the Secretary of Commerce, the Federal Trade Commission, and other Federal agencies, as necessary;

(11) gather input from stakeholders through consultations, public workshops or hearings with representatives of consumer product manufacturers, consumer groups, and environmental groups;

(12) utilize systems for verification and product certification that will ensure that claims manufacturers make about their products are valid;

(13) create a process for reviewing the accuracy of product carbon label information and protecting the product carbon label in the case of a change in the product's energy source, supply chain, ingredients, or other factors, and specify the frequency to which data should be updated; and

(14) develop a standardized, easily understandable carbon label, if appropriate, and create a process for responding to inaccuracies and misuses of such a label.

(c) REPORT TO CONGRESS.—Not later than 5 years after the program is established pursuant to subsection (b), the Administrator shall report to Congress on the effectiveness and impact of the program, the level of voluntary participation, and any recommendations for additional measures.

(d) DEFINITIONS.—As used in this section—

(1) the term "carbon content" means the amount of greenhouse gas emissions and their warming impact on the atmosphere expressed in carbon dioxide equivalent associated with a product's value chain;

(2) the term "carbon footprint" means the level of greenhouse gas emissions produced by a particular activity, service, or entity; and

(3) the term "carbon lifecycle" means the greenhouse gas emissions that are released as part of the processes of creating, producing, processing or manufacturing, modifying, transporting, distributing, storing, using, recycling, or disposing of goods and services.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Administrator $5,000,000 for the study required by subsection (a) and $25,000,000 for each of fiscal years 2010 through 2025 for the program required under subsection (b).

TITLE III—REDUCING GLOBAL WARMING POLLUTION

SEC. 301. SHORT TITLE.

This title, and sections 112, 116, 221, 222, 223, and 401 of this Act, may be cited as the "Safe Climate Act".

Subtitle A—Reducing Global Warming Pollution

SEC. 311. REDUCING GLOBAL WARMING POLLUTION.

The Clean Air Act (42 U.S.C. and following) is amended by adding after title VI the following new title:

"TITLE VII—GLOBAL WARMING POLLUTION REDUCTION PROGRAM

"PART A—GLOBAL WARMING POLLUTION REDUCTION GOALS AND TARGETS

"SEC. 701. FINDINGS AND PURPOSE.

"(a) FINDINGS.—The Congress finds as follows:

"(1) Global warming poses a significant threat to the national security, economy, public health and welfare, and environment of the United States, as well as of other nations.

"(2) Reviews of scientific studies, including by the Intergovernmental Panel on Climate Change and the National Academy of Sciences, demonstrate that global warming is the result of the combined anthropogenic greenhouse gas emissions from numerous sources of all types and sizes. Each increment of emission, when combined with other emissions, causes or contributes materially to the acceleration and extent of global warming and its adverse effects for the lifetime of such gas in the atmosphere. Accordingly, controlling emissions in small as well as large amounts is essential to prevent, slow the pace of, reduce the threats from, and mitigate global warming and its adverse effects.

"(3) Because they induce global warming, greenhouse gas emissions cause or contribute to injuries to persons in the United States, including—

"(A) adverse health effects such as disease and loss of life;

"(B) displacement of human populations;

"(C) damage to property and other interests related to ocean levels, acidification, and ice changes;

"(D) severe weather and seasonal changes;

"(E) disruption, costs, and losses to business, trade, employment, farms, subsistence, aesthetic enjoyment of the environment, recreation, culture, and tourism;

"(F) damage to plants, forests, lands, and waters;

"(G) harm to wildlife and habitat;

"(H) scarcity of water and the decreased abundance of other natural resources;

"(I) worsening of tropospheric air pollution;

"(J) substantial threats of similar damage; and

"(K) other harm.

"(4) That many of these effects and risks of future effects of global warming are widely shared does not minimize the adverse effects individual persons have suffered, will suffer, and are at risk of suffering because of global warming.

"(5) That some of the adverse and potentially catastrophic effects of global warming are at risk of occurring and not a certainty does not negate the harm persons suffer from actions that increase the likelihood, extent, and severity of such future impacts.

"(6) Nations of the world look to the United States for leadership in addressing the threat of and harm from global warming. Full implementation of the Safe Climate Act is critical to engage other nations in an international effort to mitigate the threat of and harm from global warming.

"(7) Global warming and its adverse effects are occurring and are likely to continue and increase in magnitude, and to do so at a greater and more harmful rate, unless the Safe Climate Act is fully implemented and enforced in an expeditious manner.

"(b) PURPOSE.—It is the general purpose of the Safe Climate Act to help prevent, reduce the pace of, mitigate, and remedy global warming and its adverse effects. To fulfill such purpose, it is necessary to—

"(1) require the timely fulfillment of all governmental acts and duties, both substantive and procedural, and the prompt compliance of covered entities with the requirements of the Safe Climate Act;

"(2) establish and maintain an effective, transparent, and fair market for emission allowances and preserve the integrity of the cap on emissions and of offset credits;

"(3) advance the production and deployment of clean energy and energy efficiency technologies; and

"(4) ensure effective enforcement of the Safe Climate Act by citizens, States, Indian tribes, and all levels of government because each violation of the Safe Climate Act is likely to result in an additional increment of greenhouse gas emission and will slow the pace of implementation of the Safe Climate Act and delay the achievement of the goals set forth in section 702, and cause or contribute to global warming and its adverse effects.

"SEC. 702. ECONOMY-WIDE REDUCTION GOALS.

"The goals of the Safe Climate Act are to reduce steadily the quantity of United States greenhouse gas emissions such that—

"(1) in 2012, the quantity of United States greenhouse gas emissions does not exceed 97 percent of the quantity of United States greenhouse gas emissions in 2005;

"(2) in 2020, the quantity of United States greenhouse gas emissions does not exceed 80 percent of the quantity of United States greenhouse gas emissions in 2005;

"(3) in 2030, the quantity of United States greenhouse gas emissions does not exceed 58 percent of the quantity of United States greenhouse gas emissions in 2005; and

"(4) in 2050, the quantity of United States greenhouse gas emissions does not exceed 17 percent of the quantity of United States greenhouse gas emissions in 2005.

"SEC. 703. REDUCTION TARGETS FOR SPECIFIED SOURCES.

"(a) IN GENERAL.—The regulations issued under section 721 shall cap and reduce annually the greenhouse gas emissions of capped sources each calendar year beginning in 2012 such that—

"(1) in 2012, the quantity of greenhouse gas emissions from capped sources does not exceed 97 percent of the quantity of greenhouse gas emissions from such sources in 2005;

"(2) in 2020, the quantity of greenhouse gas emissions from capped sources does not exceed 83 percent of the quantity of greenhouse gas emissions from such sources in 2005;

"(3) in 2030, the quantity of greenhouse gas emissions from capped sources does not exceed 58 percent of the quantity of greenhouse gas emissions from such sources in 2005; and

"(4) in 2050, the quantity of greenhouse gas emissions from capped sources does not exceed 17 percent of the quantity of greenhouse gas emissions from such sources in 2005.

"(b) DEFINITION.—For purposes of this section, the term 'greenhouse gas emissions from such sources in 2005' means emissions to which section 722 would have applied if the requirements of this title for the specified year had been in effect for 2005.

"SEC. 704. SUPPLEMENTAL POLLUTION REDUCTIONS.

"For the purposes of decreasing the likelihood of catastrophic climate change, preserving tropical forests, building capacity to generate offset credits, and facilitating international action on global warming, the Administrator shall set aside the percentage specified in section 781 of the quantity of emission allowances established under section 721(a) for each year, to be used to achieve a reduction of greenhouse gas emissions from deforestation in developing countries in accordance with part E. In 2020, activities supported under part E shall provide greenhouse gas reductions in an amount equal to an additional 10 percentage points of reductions from United States greenhouse gas emissions in 2005. The Administrator shall distribute these allowances with respect to activities in countries that enter into and implement agreements or arrangements relating to reduced deforestation as described in section 754(a)(2).

"SEC. 705. REVIEW AND PROGRAM RECOMMENDATIONS.

"(a) IN GENERAL.—The Administrator shall, in consultation with appropriate Federal agencies, submit to Congress a report not later than July 1, 2013, and every 4 years thereafter, that includes—

"(1) an analysis of key findings based on the latest scientific information and data relevant to global climate change;

"(2) an analysis of capabilities to monitor and verify greenhouse gas reductions on a worldwide basis, including for the United States, as required under the Safe Climate Act; and

"(3) an analysis of the status of worldwide greenhouse gas reduction efforts, including implementation of the Safe Climate Act and other policies, both domestic and international, for reducing greenhouse gas emissions, preventing dangerous atmospheric concentrations of greenhouse gases, preventing significant irreversible consequences of climate change, and reducing vulnerability to the impacts of climate change.

"(b) EXCEPTION.—Paragraph (3) of subsection (a) shall not apply to the first report submitted under such subsection.

"(c) LATEST SCIENTIFIC INFORMATION.—The analysis required under subsection (a)(1) shall—

"(1) address existing scientific information and reports, considering, to the greatest extent possible, the most recent assessment report of the Intergovernmental Panel on Climate Change, reports by the United States Global Change Research Program, the Natural Resources Climate Change Adaptation Panel established under section 475 of the American Clean Energy and Security Act of 2009, and Federal agencies, and the European Union's global temperature data assessment; and

"(2) review trends and projections for—

"(A) global and country-specific annual emissions of greenhouse gases, and cumulative greenhouse gas emissions produced between 1850 and the present, including—

"(i) global cumulative emissions of anthropogenic greenhouse gases;

"(ii) global annual emissions of anthropogenic greenhouse gases; and

"(iii) by country, annual total, annual per capita, and cumulative anthropogenic emissions of greenhouse gases for the top 50 emitting nations;

"(B) significant changes, both globally and by region, in annual net non-anthropogenic greenhouse gas emissions from natural sources, including permafrost, forests, or oceans;

"(C) global atmospheric concentrations of greenhouse gases, expressed in annual concentration units as well as carbon dioxide equivalents based on 100-year global warming potentials;

"(D) major climate forcing factors, such as aerosols;

"(E) global average temperature, expressed as seasonal and annual averages in land, ocean, and land-plus-ocean averages; and

"(F) sea level rise;

"(3) assess the current and potential impacts of global climate change on—

"(A) human populations, including impacts on public health, economic livelihoods, subsistence, human infrastructure, and displacement or permanent relocation due to flooding, severe weather, extended drought, erosion, or other ecosystem changes;

"(B) freshwater systems, including water resources for human consumption and agriculture and natural and managed ecosystems, flood and drought risks, and relative humidity;

"(C) the carbon cycle, including impacts related to the thawing of permafrost, the frequency and intensity of wildfire, and terrestrial and ocean carbon sinks;

"(D) ecosystems and animal and plant populations, including impacts on species abundance, phenology, and distribution;

"(E) oceans and ocean ecosystems, including effects on sea level, ocean acidity, ocean temperatures, coral reefs, ocean circulation, fisheries, and other indicators of ocean ecosystem health;

"(F) the cryosphere, including effects on ice sheet mass balance, mountain glacier mass balance, and sea-ice extent and volume;

"(G) changes in the intensity, frequency, or distribution of severe weather events, including precipitation, tropical cyclones, tornadoes, and severe heat waves;

"(H) agriculture and forest systems; and

"(I) any other indicators the Administrator deems appropriate;

"(4) summarize any significant socio-economic impacts of climate change in the United States, including the territories of the United States, drawing on work by Federal agencies and the academic literature, including impacts on—

"(A) public health;

"(B) economic livelihoods and subsistence;

"(C) displacement or permanent relocation due to flooding, severe weather, extended drought, or other ecosystem changes;

"(D) human infrastructure, including coastal infrastructure vulnerability to extreme events and sea level rise, river floodplain infrastructure, and sewer and water management systems;

"(E) agriculture and forests, including effects on potential growing season, distribution, and yield;

"(F) water resources for human consumption, agriculture and natural and managed ecosystems, flood and drought risks, and relative humidity;

"(G) energy supply and use; and

"(H) transportation;

"(5) in assessing risks and impacts, use a risk management framework, including both qualitative and quantitative measures, to assess the observed and projected impacts of current and future climate change, accounting for—

"(A) both monetized and non-monetized losses;

"(B) potential nonlinear, abrupt, or essentially irreversible changes in the climate system;

"(C) potential nonlinear increases in the cost of impacts;

"(D) potential low-probability, high impact events; and

"(E) whether impacts are transitory or essentially permanent; and

"(6) based on the findings of the Administrator under this section, as well as assessments produced by the Intergovernmental Panel on Climate Change, the United States Global Change Research program, and other relevant scientific entities—

"(A) describe increased risks to natural systems and society that would result from an increase in global average temperature 3.6 degrees Fahrenheit (2 degrees Celsius) above the pre-industrial average or an increase in atmospheric greenhouse gas concentrations above 450 parts per million carbon dioxide equivalent; and

"(B) identify and assess—

"(i) significant residual risks not avoided by the thresholds described in subparagraph (A);

"(ii) alternative thresholds or targets that may more effectively limit the risks identified pursuant to clause (i); and

"(iii) thresholds above those described in subparagraph (A) which significantly increase the risk of certain impacts or render them essentially permanent.

"(d) STATUS OF MONITORING AND VERIFICATION CAPABILITIES TO EVALUATE GREENHOUSE GAS REDUCTION EFFORTS.—The analysis required under subsection (a)(2) shall evaluate the capabilities of the monitoring, reporting, and verification systems used to quantify progress in achieving reductions in greenhouse gas emis-

sions both globally and in the United States (as described in section 702), including—

"(1) quantification of emissions and emission reductions by entities participating in the cap and trade program under this title;

"(2) quantification of emissions and emission reductions by entities participating in the offset program under this title;

"(3) quantification of emission and emissions reductions by entities regulated by performance standards;

"(4) quantification of aggregate net emissions and emissions reductions by the United States; and

"(5) quantification of global changes in net emissions and in sources and sinks of greenhouse gases.

"(e) STATUS OF GREENHOUSE GAS REDUCTION EFFORTS.—The analysis required under subsection (a)(3) shall address—

"(1) whether the programs under Safe Climate Act and other Federal statutes are resulting in sufficient United States greenhouse gas emissions reductions to meet the emissions reduction goals described in section 702, taking into account the use of offsets; and

"(2) whether United States actions, taking into account international actions, commitments, and trends, and considering the range of plausible emissions scenarios, are sufficient to avoid—

"(A) atmospheric greenhouse gas concentrations above 450 parts per million carbon dioxide equivalent;

"(B) global average surface temperature 3.6 degrees Fahrenheit (2 degrees Celsius) above the pre-industrial average, or such other temperature thresholds as the Administrator deems appropriate; and

"(C) other temperature or greenhouse gas thresholds identified pursuant to subsection (c)(6)(B).

"(f) RECOMMENDATIONS.—

"(1) LATEST SCIENTIFIC INFORMATION.—Based on the analysis described in subsection (a)(1), each report under subsection (a) shall identify actions that could be taken to—

"(A) improve the characterization of changes in the earth-climate system and impacts of global climate change;

"(B) better inform decision making and actions related to global climate change;

"(C) mitigate risks to natural and social systems; and

"(D) design policies to better account for climate risks.

"(2) MONITORING, REPORTING AND VERIFICATION.—Based on the analysis described in subsection (a)(2), each report under subsection (a) shall identify key gaps in measurement, reporting, and verification capabilities and make recommendations to improve the accuracy and reliability of those capabilities.

"(3) STATUS OF GREENHOUSE GAS REDUCTION EFFORTS.—Based on the analysis described in subsection (a)(3), taking into account international actions, commitments, and trends, and considering the range of plausible emissions scenarios, each report under subsection (a) shall identify—

"(A) the quantity of additional reductions required to meet the emissions reduction goals in section 702;

"(B) the quantity of additional reductions in global greenhouse gas emissions needed to avoid the concentration and temperature thresholds identified in subsection (e); and

"(C) possible strategies and approaches for achieving additional reductions.

"(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary.

"SEC. 706. NATIONAL ACADEMY REVIEW.

"(a) IN GENERAL.—Not later than 1 year after the date of enactment of this title, the Administrator shall offer to enter into a contract with the National Academy of Sciences (in this section referred to as the 'Academy') under which the Academy shall, not later than July 1, 2014, and every 4 years thereafter, submit to Congress and the Administrator a report that includes—

"(1) a review of the most recent report and recommendations issued under section 705; and

"(2) an analysis of technologies to achieve reductions in greenhouse gas emissions.

"(b) FAILURE TO ISSUE A REPORT.—In the event that the Administrator has not issued all or part of the most recent report required under section 705, the Academy shall conduct its own review and analysis of the required information.

"(c) TECHNOLOGICAL INFORMATION.—The analysis required under subsection (a)(2) shall—

"(1) review existing technological information and reports, including the most recent reports by the Department of Energy, the United States Global Change Research Program, the Intergovernmental Panel on Climate Change, and the International Energy Agency and any other relevant information on technologies or practices that reduce or limit greenhouse gas emissions;

"(2) include the participation of technical experts from relevant private industry sectors;

"(3) review the current and future projected deployment of technologies and practices in the United States that reduce or limit greenhouse gas emissions, including—

"(A) technologies for capture and sequestration of greenhouse gases;

"(B) technologies to improve energy efficiency;

"(C) low- or zero-greenhouse gas emitting energy technologies;

"(D) low- or zero-greenhouse gas emitting fuels;

"(E) biological sequestration practices and technologies; and

"(F) any other technologies the Academy deems relevant; and

"(4) review and compare the emissions reduction potential, commercial viability, market penetration, investment trends, and deployment of the technologies described in paragraph (3), including—

"(A) the need for additional research and development, including publicly funded research and development;

"(B) the extent of commercial deployment, including, where appropriate, a comparison to the cost and level of deployment of conventional fossil fuel-fired energy technologies and devices; and

"(C) an evaluation of any substantial technological, legal, or market-based barriers to commercial deployment.

"(d) RECOMMENDATIONS.—

"(1) LATEST SCIENTIFIC INFORMATION.—Based on the review described in subsection (a)(1), the Academy shall identify actions that could be taken to—

"(A) improve the characterization of changes in the earth-climate system and impacts of global climate change;

"(B) better inform decision making and actions related to global climate change;

"(C) mitigate risks to natural and social systems;

"(D) design policies to better account for climate risks; and

"(E) improve the accuracy and reliability of capabilities to monitor, report, and verify greenhouse gas emissions reduction efforts.

"(2) TECHNOLOGICAL INFORMATION.—Based on the analysis described in subsection (a)(2), the Academy shall identify—

"(A) additional emissions reductions that may be possible as a result of technologies described in the analysis;

"(B) barriers to the deployment of such technologies; and

"(C) actions that could be taken to speed deployment of such technologies.

"(3) STATUS OF GREENHOUSE GAS REDUCTION EFFORTS.—Based on the review described in subsection (a)(1), the Academy shall identify—

"(A) the quantity of additional reductions required to meet the emissions reduction goals described in section 702; and

"(B) the quantity of additional reductions in global greenhouse gas emissions needed to avoid the concentration and temperature thresholds described in section 705(c)(6)(A) or identified pursuant to section 705(c)(6)(B).

"(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary.

"SEC. 707. PRESIDENTIAL RESPONSE AND RECOMMENDATIONS.

"Not later than July 1, 2015, and every 4 years thereafter—

"(1) the President shall direct relevant Federal agencies to use existing statutory authority to take appropriate actions identified in the reports submitted under sections 705 and 706 and to address any shortfalls identified in such reports; and

"(2) in the event that the National Academy of Sciences has concluded, in the most recent report submitted under section 706, that the United States will not achieve the necessary domestic greenhouse gas emissions reductions, or that global actions will not maintain safe global average surface temperature and atmospheric greenhouse gas concentration thresholds, the President shall submit to Congress a plan identifying domestic and international actions that will achieve necessary additional greenhouse gas reductions, including any recommendations for legislative action.

"PART B—DESIGNATION AND REGISTRATION OF GREENHOUSE GASES

"SEC. 711. DESIGNATION OF GREENHOUSE GASES.

"(a) GREENHOUSE GASES.—For purposes of this title, the following are greenhouse gases:

"(1) Carbon dioxide.

"(2) Methane.

"(3) Nitrous oxide.

"(4) Sulfur hexafluoride.

"(5) Hydrofluorocarbons from a chemical manufacturing process at an industrial stationary source.

"(6) Any perfluorocarbon.

"(7) Nitrogen trifluoride.

"(8) Any other anthropogenic gas designated as a greenhouse gas by the Administrator under this section.

"(b) DETERMINATION ON ADMINISTRATOR'S INITIATIVE.—The Administrator shall, by rule—

"(1) determine whether 1 metric ton of another anthropogenic gas makes the same or greater contribution to global warming over 100 years as 1 metric ton of carbon dioxide;

"(2) determine the carbon dioxide equivalent value for each gas with respect to which the Administrator makes an affirmative determination under paragraph (1);

"(3) for each gas with respect to which the Administrator makes an affirmative determination under paragraph (1) and that is used as a substitute for a class I or class II substance under title VI, determine the extent to which to regulate that gas under section 619 and specify appropriate compliance obligations under section 619;

"(4) designate as a greenhouse gas for purposes of this title each gas for which the Administrator makes an affirmative determination under paragraph (1), to the extent that it is not regulated under section 619; and

"(5) specify the appropriate compliance obligations under this title for each gas designated as a greenhouse gas under paragraph (4).

"(c) PETITIONS TO DESIGNATE A GREENHOUSE GAS.—

"(1) IN GENERAL.—Any person may petition the Administrator to designate as a greenhouse gas any anthropogenic gas 1 metric ton of which makes the same or greater contribution to global warming over 100 years as 1 metric ton of carbon dioxide.

"(2) CONTENTS OF PETITION.—The petitioner shall provide sufficient data, as specified by rule by the Administrator, to demonstrate that the gas is likely to be a greenhouse gas and is likely to be produced, imported, used, or emitted in the United States. To the extent practicable, the petitioner shall also identify producers, importers, distributors, users, and emitters of the gas in the United States.

"(3) REVIEW AND ACTION BY THE ADMINISTRATOR.—Not later than 90 days after receipt of a petition under paragraph (2), the Administrator shall determine whether the petition is complete and notify the petitioner and the public of the decision.

"(4) ADDITIONAL INFORMATION.—The Administrator may require producers, importers, distributors, users, or emitters of the gas to provide information on the contribution of the gas to global warming over 100 years compared to carbon dioxide.

"(5) TREATMENT OF PETITION.—For any substance used as a substitute for a class I or class II substance under title VI, the Administrator may elect to treat a petition under this subsection as a petition to list the substance as a class II, group II substance under section 619, and may require the petition to be amended to address listing criteria promulgated under that section.

"(6) DETERMINATION.—Not later than 2 years after receipt of a complete petition, the Administrator shall, after notice and an opportunity for comment—

"(A) issue and publish in the Federal Register—

"(i) a determination that 1 metric ton of the gas does not make a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide; and

"(ii) an explanation of the decision; or

"(B) determine that 1 metric ton of the gas makes a contribution to global warming over 100 years that is equal to or greater than that made by 1

metric ton of carbon dioxide, and take the actions described in subsection (b) with respect to such gas.

"(7) GROUNDS FOR DENIAL.—The Administrator may not deny a petition under this subsection solely on the basis of inadequate Environmental Protection Agency resources or time for review.

"(d) SCIENCE ADVISORY BOARD CONSULTATION.—

"(1) CONSULTATION.—The Administrator shall—

"(A) give notice to the Science Advisory Board prior to making a determination under subsection (b)(1), (c)(6), or (e)(2)(B);

"(B) consider the written recommendations of the Science Advisory Board under paragraph (2) regarding the determination; and

"(C) consult with the Science Advisory Board regarding such determination, including consultation subsequent to receipt of such written recommendations.

"(2) FORMULATION OF RECOMMENDATIONS.—Upon receipt of notice under paragraph (1)(A) regarding a pending determination under subsection (b)(1), (c)(6), or (e)(2)(B), the Science Advisory Board shall—

"(A) formulate recommendations regarding such determination, subject to a peer review process; and

"(B) submit such recommendations in writing to the Administrator.

"(e) MANUFACTURING AND EMISSION NOTICES.—

"(1) NOTICE REQUIREMENT.—

"(A) IN GENERAL.—Effective 24 months after the date of enactment of this title, no person may manufacture or introduce into interstate commerce a fluorinated gas, or emit a significant quantity, as determined by the Administrator, of any fluorinated gas that is generated as a byproduct during the production or use of another fluorinated gas, unless—

"(i) the gas is designated as a greenhouse gas under this section or is an ozone-depleting substance listed as a class I or class II substance under title VI;

"(ii) the Administrator has determined that 1 metric ton of such gas does not make a contribution to global warming that is equal to or greater than that made by 1 metric ton of carbon dioxide; or

"(iii) the person manufacturing or importing the gas for distribution into interstate commerce, or emitting the gas, has submitted to the Administrator, at least 90 days before the start of such manufacture, introduction into commerce, or emission, a notice of such person's manufacture, introduction into commerce, or emission of such gas, and the Administrator has not determined that notice or a substantially similar notice is incomplete.

"(B) ALTERNATIVE COMPLIANCE.—For a gas that is a substitute for a class I or class II substance under title VI and either has been listed as acceptable for use under section 612 or is currently subject to evaluation under section 612, the Administrator may accept the notice and information provided pursuant to that section as fulfilling the obligation under clause (iii) of subparagraph (A).

"(2) REVIEW AND ACTION BY THE ADMINISTRATOR.—

"(A) COMPLETENESS.—Not later than 90 days after receipt of notice under paragraph (1)(A)(iii) or (B), the Administrator shall determine whether the notice is complete.

"(B) DETERMINATION.— If the Administrator determines that the notice is complete, the Administrator shall, after notice and an opportunity for comment, not later than 12 months after receipt of the notice—

"(i) issue and publish in the Federal Register a determination that 1 metric ton of the gas does not make a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide and an explanation of the decision; or

"(ii) determine that 1 metric ton of the gas makes a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide, and take the actions described in subsection (b) with respect to such gas.

"(f) REGULATIONS.—Not later than one year after the date of enactment of this title, the Administrator shall promulgate regulations to carry out this section. Such regulations shall include—

"(1) requirements for the contents of a petition submitted under subsection (c);

"(2) requirements for the contents of a notice required under subsection (e); and

"(3) methods and standards for evaluating the carbon dioxide equivalent value of a gas.

"(g) GASES REGULATED UNDER TITLE VI.—The Administrator shall not designate a gas as a greenhouse gas under this section to the extent that the gas is regulated under title VI.

"(h) SAVINGS CLAUSE.—Nothing in this section shall be interpreted to relieve any person from complying with the requirements of section 612.

"SEC. 712. CARBON DIOXIDE EQUIVALENT VALUE OF GREENHOUSE GASES.

"(a) MEASURE OF QUANTITY OF GREENHOUSE GASES.—Any provision of this title or title VIII that refers to a quantity or percentage of a quantity of greenhouse gases shall mean the quantity or percentage of the greenhouse gases expressed in carbon dioxide equivalents.

"(b) INITIAL VALUE.—Except as provided by the Administrator under this section or section 711—

"(1) the carbon dioxide equivalent value of greenhouse gases for purposes of this Act shall be as follows:

"CARBON DIOXIDE EQUIVALENT OF 1 TON OF LISTED GREENHOUSE GASES

Greenhouse gas (1 metric ton)	Carbon dioxide equivalent (metric tons)
Carbon dioxide	1
Methane	25
Nitrous oxide	298
HFC-23	14,800
HFC-125	3,500
HFC-134a	1,430
HFC-143a	4,470
HFC-152a	124
HFC-227ea	3,220
HFC-236fa	9,810
HFC-4310mee	1,640
CF_4	7,390
C_2F_6	12,200
C_4F_{10}	8,860
C_6F_{14}	9,300
SF_6	22,800
NF_3	17,200

; and

"(2) the carbon dioxide equivalent value for purposes of this Act for any greenhouse gas not listed in the table under paragraph (1) shall be the 100-year Global Warming Potentials provided in the Intergovernmental Panel on Climate Change Fourth Assessment Report.

"(c) PERIODIC REVIEW.—

"(1) Not later than February 1, 2017, and (except as provided in paragraph (3)) not less than every 5 years thereafter, the Administrator shall—

"(A) review and, if appropriate, revise the carbon dioxide equivalent values established under this section or section 711(b)(2), based on a determination of the number of metric tons of carbon dioxide that makes the same contribution to global warming over 100 years as 1 metric ton of each greenhouse gas; and

"(B) publish in the Federal Register the results of that review and any revisions.

"(2) A revised determination published in the Federal Register under paragraph (1)(B) shall take effect for greenhouse gas emissions starting on January

1 of the first calendar year starting at least 9 months after the date on which the revised determination was published.

"(3) The Administrator may decrease the frequency of review and revision under paragraph (1) if the Administrator determines that such decrease is appropriate in order to synchronize such review and revision with any similar review process carried out pursuant to the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, or to an agreement negotiated under that convention, except that in no event shall the Administrator carry out such review and revision any less frequently than every 10 years.

"(d) METHODOLOGY.—In setting carbon dioxide equivalent values, for purposes of this section or section 711, the Administrator shall take into account publications by the Intergovernmental Panel on Climate Change or a successor organization under the auspices of the United Nations Environmental Programme and the World Meteorological Organization.

"SEC. 713. GREENHOUSE GAS REGISTRY.

"(a) DEFINITIONS.—For purposes of this section:

"(1) CLIMATE REGISTRY.—The term 'Climate Registry' means the greenhouse gas emissions registry jointly established and managed by more than 40 States and Indian tribes in 2007 to collect high-quality greenhouse gas emission data from facilities, corporations, and other organizations to support various greenhouse gas emission reporting and reduction policies for the member States and Indian tribes.

"(2) REPORTING ENTITY.—The term 'reporting entity' means—

"(A) a covered entity;

"(B) an entity that—

"(i) would be a covered entity if it had emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level in the definition of covered entity in paragraph (13) of section 700; and

"(ii) has emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level in the definition of covered entity in paragraph (13) of section 700, provided that the figure of 25,000 tons of carbon dioxide equivalent is read instead as 10,000 tons of carbon dioxide equivalent and the figure of 460,000,000 cubic feet is read instead as 184,000,000 cubic feet;

"(C) any other entity that emits a greenhouse gas, or produces, imports, manufactures, or delivers material whose use results or may result in greenhouse gas emissions if the Administrator determines that reporting under this section by such entity will help achieve the purposes of this title or title VIII;

"(D) any vehicle fleet with emissions of more than 25,000 tons of carbon dioxide equivalent on an annual basis, if the Administrator determines that the inclusion of such fleet will help achieve the purposes of this title or title VIII; or

"(E) any entity that delivers electricity to an energy-intensive facility in an industrial sector that meets the energy or greenhouse gas intensity criteria in section 764(b)(2)(A)(i).

"(b) REGULATIONS.—

"(1) IN GENERAL.—Not later than 6 months after the date of enactment of this title, the Administrator shall issue regulations establishing a Federal greenhouse gas registry. Such regulations shall—

"(A) require reporting entities to submit to the Administrator data on—

"(i) greenhouse gas emissions in the United States;

"(ii) the production and manufacture in the United States, importation into the United States, and, at the discretion of the Administrator, exportation from the United States, of fuels and industrial gases the uses of which result or may result in greenhouse gas emissions;

"(iii) deliveries in the United States of natural gas, and any other gas meeting the specifications for commingling with natural gas for purposes of delivery, the combustion of which result or may result in greenhouse gas emissions; and

"(iv) the capture and sequestration of greenhouse gases;

"(B) require covered entities and, where appropriate, other reporting entities to submit to the Administrator data sufficient to ensure compliance with or implementation of the requirements of this title;

"(C) require reporting of electricity delivered to industrial sources in energy-intensive industries;

"(D) ensure the completeness, consistency, transparency, accuracy, precision, and reliability of such data;

"(E) take into account the best practices from the most recent Federal, State, tribal, and international protocols for the measurement, accounting, reporting, and verification of greenhouse gas emissions, including protocols from the Climate Registry and other mandatory State or multistate authorized programs;

"(F) take into account the latest scientific research;

"(G) require that, for covered entities with respect to greenhouse gases to which section 722 applies, and, to the extent determined to be appropriate by the Administrator, for covered entities with respect to other greenhouse gases and for other reporting entities, submitted data are based on—

"(i) continuous monitoring systems for fuel flow or emissions, such as continuous emission monitoring systems;

"(ii) alternative systems that are demonstrated as providing data with the same precision, reliability, accessibility, and timeliness, or, to the extent the Administrator determines is appropriate for reporting small amounts of emissions, the same precision, reliability, and accessibility and similar timeliness, as data provided by continuous monitoring systems for fuel flow or emissions; or

"(iii) alternative methodologies that are demonstrated to provide data with precision, reliability, accessibility, and timeliness, or, to the extent the Administrator determines is appropriate for reporting small amounts of emissions, precision, reliability, and accessibility, as similar as is technically feasible to that of data generally provided by continuous monitoring systems for fuel flow or emissions, if the Administrator determines that, with respect to a reporting entity, there is no continuous monitoring system or alternative system described in clause (i) or (ii) that is technically feasible;

"(H) require that the Administrator, in determining the extent to which the requirement to use systems or methodologies in accordance with subparagraph (G) is appropriate for reporting entities other than covered entities or for greenhouse gases to which section 722 does not apply, consider the cost of using such systems and methodologies, and of using other systems and methodologies that are available and suitable, for quantifying the emissions involved in light of the purposes of this title, including the goal of collecting consistent entity-wide data;

"(I) include methods for minimizing double reporting and avoiding irreconcilable double reporting of greenhouse gas emissions;

"(J) establish measurement protocols for carbon capture and sequestration systems, taking into consideration the regulations promulgated under section 813;

"(K) require that reporting entities provide the data required under this paragraph in reports submitted electronically to the Administrator, in such form and containing such information as may be required by the Administrator;

"(L) include requirements for keeping records supporting or related to, and protocols for auditing, submitted data;

"(M) establish consistent policies for calculating carbon content and greenhouse gas emissions for each type of fossil fuel with respect to which reporting is required;

"(N) subsequent to implementation of policies developed under subparagraph (M), provide for immediate dissemination, to States, Indian tribes, and on the Internet, of all data reported under this section as soon as practicable after electronic audit by the Administrator and any resulting correction of data, except that data shall not be disseminated under this subparagraph if—

"(i) its nondissemination is vital to the national security of the United States, as determined by the President; or

"(ii) it is confidential business information that cannot be derived from information that is otherwise publicly available and that would cause significant calculable competitive harm if published, except that—

"(I) data relating to greenhouse gas emissions, including any upstream or verification data from reporting entities, shall not be considered to be confidential business information; and

"(II) data that is confidential business information shall be provided to a State or Indian tribe within whose jurisdiction the reporting entity is located, if the Administrator determines that such

State or Indian tribe has in effect protections for confidential business information that are equivalent to protections applicable to the Federal Government;

"(O) prescribe methods by which the Administrator shall, in cases in which satisfactory data are not submitted to the Administrator for any period of time, estimate emission, production, importation, manufacture, or delivery levels—

"(i) for covered entities with respect to greenhouse gas emissions, production, importation, manufacture, or delivery regulated under this title to ensure that emissions, production, importation, manufacture, or deliveries are not underreported, and to create a strong incentive for meeting data monitoring and reporting requirements—

"(I) with a conservative estimate of the highest emission, production, importation, manufacture, or delivery levels that may have occurred during the period for which data are missing; or

"(II) to the extent the Administrator considers appropriate, with an estimate of such levels assuming the unit is emitting, producing, importing, manufacturing, or delivering at a maximum potential level during the period, in order to ensure that such levels are not underreported and to create a strong incentive for meeting data monitoring and reporting requirements; and

"(ii) for covered entities with respect to greenhouse gas emissions to which section 722 does not apply and for other reporting entities, with a reasonable estimate of the emission, production, importation, manufacture, or delivery levels that may have occurred during the period for which data are missing;

"(P) require the designation of a designated representative for each reporting entity;

"(Q) require an appropriate certification, by the designated representative for the reporting entity, of accurate and complete accounting of greenhouse gas emissions, as determined by the Administrator; and

"(R) include requirements for other data necessary for accurate and complete accounting of greenhouse gas emissions, as determined by the Administrator, including data for quality assurance of monitoring systems, monitors and other measurement devices, and other data needed to verify reported emissions, production, importation, manufacture, or delivery.

"(2) TIMING.—

"(A) CALENDAR YEARS 2007 THROUGH 2010.—For a base period of calendar years 2007 through 2010, each reporting entity shall submit annual data required under this section to the Administrator not later than March 31, 2011. The Administrator may waive or modify reporting requirements for calendar years 2007 through 2010 for categories of reporting entities to the extent that the Administrator determines that the reporting entities did not keep data or records necessary to meet reporting requirements. The Administrator may, in addition to or in lieu of such requirements, collect information on energy consumption and production.

"(B) SUBSEQUENT CALENDAR YEARS.—For calendar year 2011 and each subsequent calendar year, each reporting entity shall submit quarterly data required under this section to the Administrator not later than 60 days after the end of the applicable quarter, except when the data is already being reported to the Administrator on an earlier timeframe for another program.

"(3) WAIVER OF REPORTING REQUIREMENTS.—The Administrator may waive reporting requirements under this section for specific entities to the extent that the Administrator determines that sufficient and equally or more reliable verified and timely data are available to the Administrator and the public on the Internet under other mandatory statutory requirements.

"(4) ALTERNATIVE THRESHOLD.—The Administrator may, by rule, establish applicability thresholds for reporting under this section using alternative metrics and levels, provided that such metrics and levels are easier to administer and cover the same size and type of sources as the threshold defined in this section.

"(c) INTERRELATIONSHIP WITH OTHER SYSTEMS.—In developing the regulations issued under subsection (b), the Administrator shall take into account the work done by the Climate Registry and other mandatory State or multistate programs. Such regulations shall include an explanation of any major differences in approach between the system established under the regulations and such registries and programs.

"PART C—PROGRAM RULES

"SEC. 721. EMISSION ALLOWANCES.

"(a) IN GENERAL.—The Administrator shall establish a separate quantity of emission allowances for each calendar year starting in 2012, in the amounts prescribed under subsection (e).

"(b) IDENTIFICATION NUMBERS.—The Administrator shall assign to each emission allowance established under subsection (a) a unique identification number that includes the vintage year for that emission allowance.

"(c) LEGAL STATUS OF EMISSION ALLOWANCES.—

"(1) IN GENERAL.—An allowance established by the Administrator under this title does not constitute a property right.

"(2) TERMINATION OR LIMITATION.—Nothing in this Act or any other provision of law shall be construed to limit or alter the authority of the United States, including the Administrator acting pursuant to statutory authority, to terminate or limit allowances or offset credits.

"(3) OTHER PROVISIONS UNAFFECTED.—Except as otherwise specified in this Act, nothing in this Act relating to allowances or offset credits established or issued under this title shall affect the application of any other provision of law to a covered entity, or the responsibility for a covered entity to comply with any such provision of law.

"(d) SAVINGS PROVISION.—Nothing in this part shall be construed as requiring a change of any kind in any State law regulating electric utility rates and charges, or as affecting any State law regarding such State regulation, or as limiting State regulation (including any prudency review) under such a State law. Nothing in this part shall be construed as modifying the Federal Power Act or as affecting the authority of the Federal Energy Regulatory Commission under that Act. Nothing in this part shall be construed to interfere with or impair any program for competitive bidding for power supply in a State in which such program is established.

"(e) ALLOWANCES FOR EACH CALENDAR YEAR.—

"(1) IN GENERAL.—Except as provided in paragraph (2), the number of emission allowances established by the Administrator under subsection (a) for each calendar year shall be as provided in the following table:

"Calendar year	Emission allowances (in millions)
2012	4,627
2013	4,544
2014	5,099
2015	5,003
2016	5,482
2017	5,375
2018	5,269
2019	5,162
2020	5,056
2021	4,903
2022	4,751
2023	4,599
2024	4,446
2025	4,294
2026	4,142
2027	3,990
2028	3,837
2029	3,685

"Calendar year	Emission allowances (in millions)
2030	3,533
2031	3,408
2032	3,283
2033	3,158
2034	3,033
2035	2,908
2036	2,784
2037	2,659
2038	2,534
2039	2,409
2040	2,284
2041	2,159
2042	2,034
2043	1,910
2044	1,785
2045	1,660
2046	1,535
2047	1,410
2048	1,285
2049	1,160
2050 and each year thereafter	1,035

"(2) REVISION.—

"(A) IN GENERAL.—The Administrator may adjust, in accordance with subparagraph (B), the number of emission allowances established pursuant to paragraph (1) if, after notice and an opportunity for public comment, the Administrator determines that—

"(i) United States greenhouse gas emissions in 2005 were other than 7,206 million metric tons carbon dioxide equivalent;

"(ii) if the requirements of this title for 2012 had been in effect in 2005, section 722 would have required emission allowances to be held for other than 66.2 percent of United States greenhouse gas emissions in 2005;

"(iii) if the requirements of this title for 2014 had been in effect in 2005, section 722 would have required emission allowances to be held for other than 75.7 percent of United States greenhouse gas emissions in 2005; or

"(iv) if the requirements of this title for 2016 had been in effect in 2005, section 722 would have required emission allowances to be held for other than 84.5 percent United States greenhouse gas emissions in 2005.

"(B) ADJUSTMENT FORMULA.—

"(i) IN GENERAL.—If the Administrator adjusts under this paragraph the number of emission allowances established pursuant to paragraph (1), the number of emission allowances the Administrator establishes for any given calendar year shall equal the product of—

"(I) United States greenhouse gas emissions in 2005, expressed in tons of carbon dioxide equivalent;

"(II) the percent of United States greenhouse gas emissions in 2005, expressed in tons of carbon dioxide equivalent, that would have been subject to section 722 if the requirements of this title for the given calendar year had been in effect in 2005; and

"(III) the percentage set forth for that calendar year in section 703(a), or determined under clause (ii) of this subparagraph.

"(ii) TARGETS.—In applying the portion of the formula in clause (i)(III) of this subparagraph, for calendar years for which a percentage is not listed in section 703(a), the Administrator shall use a uniform annual decline in the amount of emissions between the years that are specified.

"(iii) CARBON DIOXIDE EQUIVALENT VALUE.—If the Administrator adjusts under this paragraph the number of emission allowances established pursuant to paragraph (1), the Administrator shall use the carbon dioxide equivalent values established pursuant to section 712.

"(iv) LIMITATION ON ADJUSTMENT TIMING.—Once a calendar year has started, the Administrator may not adjust the number of emission allowances to be established for that calendar year.

"(C) LIMITATION ON ADJUSTMENT AUTHORITY.—The Administrator may adjust under this paragraph the number of emission allowances to be established pursuant to paragraph (1) only once.

"(f) COMPENSATORY ALLOWANCE.—

"(1) IN GENERAL.—The regulations promulgated under subsection (h) shall provide for the establishment and distribution of compensatory allowances for—

"(A) the destruction, in 2012 or later, of fluorinated gases that are greenhouse gases if—

"(i) allowances or offset credits were retired for their production or importation; and

"(ii) such gases are not required to be destroyed under any other provision of law;

"(B) the nonemissive use, in 2012 or later, of petroleum-based or coal-based liquid or gaseous fuel, petroleum coke, natural gas liquid, or natural gas as a feedstock, if allowances or offset credits were retired for the greenhouse gases that would have been emitted from their combustion; and

"(C) the conversionary use, in 2012 or later, of fluorinated gases in a manufacturing process, including semiconductor research or manufacturing, if allowances or offset credits were retired for the production or importation of such gas.

"(2) ESTABLISHMENT AND DISTRIBUTION.—

"(A) IN GENERAL.—Not later than 90 days after the end of each calendar year, the Administrator shall establish and distribute to the entity taking the actions described in subparagraph (A), (B), or (C) of paragraph (1) a quantity of compensatory allowances equivalent to the number of tons of carbon dioxide equivalent of avoided emissions achieved through such actions. In establishing the quantity of compensatory allowances, the Administrator shall take into account the carbon dioxide equivalent value of any greenhouse gas resulting from such action.

"(B) SOURCE OF ALLOWANCES.—Compensatory allowances established under this subsection shall not be emission allowances established under subsection (a).

"(C) IDENTIFICATION NUMBERS.—The Administrator shall assign to each compensatory allowance established under subparagraph (A) a unique identification number.

"(3) DEFINITIONS.—For purposes of this subsection—

"(A) the term 'destruction' means the conversion of a greenhouse gas by thermal, chemical, or other means to another gas or set of gases with little or no carbon dioxide equivalent value;

"(B) the term 'nonemissive use' means the use of fossil fuel as a feedstock in an industrial or manufacturing process to the extent that greenhouse gases are not emitted from such process, and to the extent that the products of such process are not intended for use as, or to be contained in, a fuel; and

"(C) the term 'conversionary use' means the conversion during research or manufacturing of a fluorinated gas into another greenhouse gas or set of gases with a lower carbon dioxide equivalent value.

"(4) FEEDSTOCK EMISSIONS STUDY.—

"(A) The Administrator may conduct a study to determine the extent to which petroleum-based or coal-based liquid or gaseous fuel, petroleum coke, natural gas liquid, or natural gas are used as feedstocks in manufacturing processes to produce products and the greenhouse gas emissions resulting from such uses.

"(B) If as a result of such a study, the Administrator determines that the use of such products by noncovered sources results in substantial emissions

of greenhouse gases or their precursors and that such emissions have not been adequately addressed under other requirements of this Act, the Administrator may, after notice and comment rulemaking, promulgate a regulation reducing compensatory allowances commensurately if doing so will not result in leakage.

"(g) FLUORINATED GASES ASSESSMENT.—No later than March 31, 2014, the Administrator shall conduct an assessment of the regulation of non-HFC fluorinated gases under this title to determine whether the most appropriate point of regulation is at the gas manufacturer or importer level, or at the source of emissions downstream. If the Administrator determines, based on consideration of environmental effectiveness, cost effectiveness, administrative feasibility, extent of coverage of emissions, and competitiveness considerations, that emissions of non-HFC fluorinated gases can best be regulated by designating downstream emission sources as covered entities with compliance obligations under section 722, the Administrator shall, after notice and comment rulemaking, change the definition of covered entity with respect to fluorinated gases (other than HFCs) accordingly and establish such requirements as are necessary to ensure compliance for such entities with the requirements of this title.

"(h) REGULATIONS.—Not later than 24 months after the date of enactment of this title, the Administrator shall promulgate regulations to carry out the provisions of this title.

"SEC. 722. PROHIBITION OF EXCESS EMISSIONS.

"(a) PROHIBITION.—Except as provided in subsection (c), effective January 1, 2012, each covered entity is prohibited from emitting greenhouse gases, and having attributable greenhouse gas emissions, in combination, in excess of its allowable emissions level. A covered entity's allowable emissions level for each calendar year is the number of emission allowances (or credits or other allowances as provided in subsection (d)) it holds as of 12:01 a.m. on April 1 (or a later date established by the Administrator under subsection (j)) of the following calendar year.

"(b) METHODS OF DEMONSTRATING COMPLIANCE.—Except as otherwise provided in this section, the owner or operator of a covered entity shall not be considered to be in compliance with the prohibition in subsection (a) unless, as of 12:01 a.m. on April 1 (or a later date established by the Administrator under subsection (j)) of each calendar year starting in 2013, the owner or operator holds a quantity of emission allowances (or credits or other allowances as provided in subsection (d)) at least as great as the quantity calculated as follows:

"(1) ELECTRICITY SOURCES.—For a covered entity described in section 700(13)(A), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that such covered entity emitted in the previous calendar year, excluding emissions resulting from the combustion of—

"(A) petroleum-based or coal-based liquid fuel;

"(B) natural gas liquid;

"(C) renewable biomass or gas derived from renewable biomass; or

"(D) petroleum coke or gas derived from petroleum coke.

"(2) FUEL PRODUCERS AND IMPORTERS.—For a covered entity described in section 700(13)(B), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that would be emitted from the combustion of any petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, produced or imported by such covered entity during the previous calendar year for sale or distribution in interstate commerce, assuming no capture and sequestration of any greenhouse gas emissions.

"(3) INDUSTRIAL GAS PRODUCERS AND IMPORTERS.—For a covered entity described in section 700(13)(C), 1 emission allowance for each ton of carbon dioxide equivalent of fossil fuel-based carbon dioxide, nitrous oxide, or any other fluorinated gas that is a greenhouse gas (except for nitrogen trifluoride), or any combination thereof, produced or imported by such covered entity during the previous calendar year for sale or distribution in interstate commerce or released as fugitive emissions in the production of fluorinated gas.

"(4) NITROGEN TRIFLUORIDE SOURCES.—For a covered entity described in section 700(13)(D), 1 emission allowance for each ton of carbon dioxide equivalent of nitrogen trifluoride that such covered entity emitted in the previous calendar year.

"(5) GEOLOGICAL SEQUESTRATION SITES.—For a covered entity described in section 700(13)(E), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that such covered entity emitted in the previous calendar year.

"(6) INDUSTRIAL STATIONARY SOURCES.—For a covered entity described in section 700(13)(F), (G), or (H), 1 emission allowance for each ton of carbon dioxide

equivalent of greenhouse gas that such covered entity emitted in the previous calendar year, excluding emissions resulting from—

"(A) the combustion of petroleum-based or coal-based liquid fuel;

"(B) the combustion of natural gas liquid;

"(C) the combustion of renewable biomass or gas derived from renewable biomass;

"(D) the combustion of petroleum coke or gas derived from petroleum coke; or

"(E) the use of any fluorinated gas that is a greenhouse gas purchased for use at that covered entity, except for nitrogen trifluoride.

"(7) INDUSTRIAL FOSSIL FUEL-FIRED COMBUSTION DEVICES.—For a covered entity described in section 700(13)(I), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that the devices emitted in the previous calendar year, excluding emissions resulting from the combustion of—

"(A) petroleum-based or coal-based liquid fuel;

"(B) natural gas liquid;

"(C) renewable biomass or gas derived from renewable biomass; or

"(D) petroleum coke or gas derived from petroleum coke.

"(8) NATURAL GAS LOCAL DISTRIBUTION COMPANIES.—For a covered entity described in section 700(13)(J), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that would be emitted from the combustion of the natural gas, and any other gas meeting the specifications for commingling with natural gas for purposes of delivery, that such entity delivered during the previous calendar year to customers that are not covered entities, assuming no capture and sequestration of that greenhouse gas.

"(9) ALGAE-BASED FUELS.—Where carbon dioxide (or another greenhouse gas) is used as an input in the production of algae-based fuels, the Administrator shall ensure that allowances are required to be held either for the carbon dioxide used to grow the algae or for the carbon dioxide emitted from combustion of the fuel produced from such algae, but not for both.

"(10) FUGITIVE EMISSIONS.—The greenhouse gas emissions to which paragraphs (1), (4), (6), and (7) apply shall not include fugitive emissions of greenhouse gas, except to the extent the Administrator determines that data on the carbon dioxide equivalent value of greenhouse gas in the fugitive emissions can be provided with sufficient precision, reliability, accessibility, and timeliness to ensure the integrity of emission allowances, the allowance tracking system, and the cap on emissions.

"(11) EXPORT EXEMPTION.—This section shall not apply to any petroleum-based or coal-based liquid fuel, petroleum coke, natural gas liquid, fossil fuel-based carbon dioxide, nitrous oxide, or fluorinated gas that is exported for sale or use.

"(12) NATURAL GAS LIQUIDS.—Notwithstanding subsection (a), if the owner or operator of a covered entity described in section 700(13)(B) that produces natural gas liquids does not take ownership of the liquids, and is not responsible for the distribution or use of the liquids in commerce, the owner of the liquids shall be responsible for compliance with this section, section 723, and other relevant sections of this title with respect to such liquids. In the regulations promulgated under section 721, the Administrator shall include such provisions with respect to such liquids as the Administrator determines are appropriate to determine and ensure compliance, and to penalize noncompliance. In such a case, the owner of the covered entity shall provide to the Administrator, in a manner to be determined by the Administrator, information regarding the quantity and ownership of liquids produced at the covered entity.

"(13) APPLICATION OF MULTIPLE PARAGRAPHS.—For a covered entity to which more than 1 of paragraphs (1) through (8) apply, all applicable paragraphs shall apply, except that not more than 1 emission allowance shall be required for the same emission.

"(c) PHASE-IN OF PROHIBITION.—

"(1) INDUSTRIAL STATIONARY SOURCES.—The prohibition under subsection (a) shall first apply to a covered entity described in section 700(13)(D), (F), (G), (H), or (I), with respect to emissions occurring during calendar year 2014.

"(2) NATURAL GAS LOCAL DISTRIBUTION COMPANIES.—The prohibition under subsection (a) shall first apply to a covered entity described in section 700(13)(J) with respect to deliveries occurring during calendar year 2016.

"(d) ADDITIONAL METHODS.—In addition to using the method of compliance described in subsection (b), a covered entity may do the following:

"(1) OFFSET CREDITS.—

"(A) IN GENERAL.—Covered entities collectively may, in accordance with this paragraph, use offset credits to demonstrate compliance for up to a

maximum of 2 billion tons of greenhouse gas emissions annually. The ability to demonstrate compliance with offset credits shall be divided pro rata among covered entities by allowing each covered entity to satisfy a percentage of the number of allowances required to be held under subsection (b) to demonstrate compliance by holding 1 domestic offset credit or 1.25 international offset credits in lieu of an emission allowance, except as provided in subparagraph (D).

"(B) APPLICABLE PERCENTAGE.—The percentage referred to in subparagraph (A) for a given calendar year shall be determined by dividing 2 billion by the sum of 2 billion plus the number of emission allowances established under section 721(a) for the previous year, and multiplying that number by 100. Not more than one half of the applicable percentage under this paragraph may be used by holding domestic offset credits, and not more than one half of the applicable percentage under this paragraph may be used by holding international offset credits, except as provided in subparagraph (C).

"(C) MODIFIED PERCENTAGES.—If the Administrator determines that domestic offset credits available for use in demonstrating compliance in any calendar year at domestic offset prices generally equal to or less than allowance prices, are likely to offset less than 0.9 billion tons of greenhouse gas emissions (measured in tons of carbon dioxide equivalents), the Administrator shall increase the percent of emissions that can be offset through the use of international offset credits (and decrease the percent of emissions that can be allowed through the use of domestic offset credits by the same amount) to reflect the amount that 1.0 billion exceeds the number of domestic offset credits the Administrator determines is available for that year, up to a maximum of 0.5 billion tons of greenhouse gas emissions.

"(D) INTERNATIONAL OFFSET CREDITS.—Notwithstanding subparagraph (A), to demonstrate compliance prior to calendar year 2018, a covered entity may use 1 international offset credit in lieu of an emission allowance up to the amount permitted under this paragraph.

"(E) PRESIDENT'S RECOMMENDATION.—The President may make a recommendation to Congress as to whether the number 2 billion specified in subparagraphs (A) and (B) should be increased or decreased.

"(2) INTERNATIONAL EMISSION ALLOWANCES.—To demonstrate compliance, a covered entity may hold an international emission allowance in lieu of an emission allowance, except as modified under section 728(d).

"(3) COMPENSATORY ALLOWANCES.—To demonstrate compliance, a covered entity may hold a compensatory allowance obtained under section 721(f) in lieu of an emission allowance.

"(e) RETIREMENT OF ALLOWANCES AND CREDITS.—As soon as practicable after a deadline established for covered entities to demonstrate compliance with this title, the Administrator shall retire the quantity of allowances or credits required to be held under this title.

"(f) ALTERNATIVE METRICS.—For categories of covered entities described in subparagraph (B), (C), (D), (G), (H), or (I) of section 700(13), the Administrator may, by rule, establish an applicability threshold for inclusion under those subparagraphs using an alternative metric and level, provided that such metric and level are easier to administer and cover the same size and type of sources as the threshold defined in such subparagraphs.

"(g) THRESHOLD REVIEW.—For each category of covered entities described in subparagraph (B), (C), (D), (G), (H), or (I) of section 700(13), the Administrator shall, in 2020 and once every 8 years thereafter, review the carbon dioxide equivalent emission thresholds that are used to define covered entities. After consideration of—

"(1) emissions from covered entities in each such category, and from other entities of the same type that emit less than the threshold amount for the category (including emission sources that commence operation after the date of enactment of this title that are not covered entities); and

"(2) whether greater greenhouse gas emission reductions can be cost-effectively achieved by lowering the applicable threshold,

the Administrator may by rule lower such threshold to not less than 10,000 tons of carbon dioxide equivalent emissions. In determining the cost effectiveness of potential reductions from lowering the threshold for covered entities, the Administrator shall consider alternative regulatory greenhouse gas programs, including setting standards under other titles of this Act.

"(h) DESIGNATED REPRESENTATIVES.—The regulations promulgated under section 721(h) shall require that each covered entity, and each entity holding allowances or credits or receiving allowances or credits from the Administrator under this title, select a designated representative.

"(i) EDUCATION AND OUTREACH.—

"(1) IN GENERAL.—The Administrator shall establish and carry out a program of education and outreach to assist covered entities, especially entities having little experience with environmental regulatory requirements similar or comparable to those under this title, in preparing to meet the compliance obligations of this title. Such program shall include education with respect to using markets to effectively achieve such compliance.

"(2) FAILURE TO RECEIVE INFORMATION.—A failure to receive information or assistance under this subsection may not be used as a defense against an allegation of any violation of this title.

"(j) ADJUSTMENT OF DEADLINE.—The Administrator may, by rule, establish a deadline for demonstrating compliance, for a calendar year, later than the date provided in subsection (a), as necessary to ensure the availability of emissions data, but in no event shall the deadline be later than June 1.

"(k) NOTICE REQUIREMENT FOR COVERED ENTITIES RECEIVING NATURAL GAS FROM NATURAL GAS LOCAL DISTRIBUTION COMPANIES.—The owner or operator of a covered entity that takes delivery of natural gas from a natural gas local distribution company shall, not later than September 1 of each calendar year, notify such natural gas local distribution company in writing that such entity will qualify as a covered entity under this title for that calendar year.

"(l) COMPLIANCE OBLIGATION.—For purposes of this title, the year of a compliance obligation is the year in which compliance is determined, not the year in which the greenhouse gas emissions occur or the covered entity has attributable greenhouse gas emissions.

"SEC. 723. PENALTY FOR NONCOMPLIANCE.

"(a) ENFORCEMENT.—A violation of any prohibition of, requirement of, or regulation promulgated pursuant to this title shall be a violation of this Act. It shall be a violation of this Act for a covered entity to emit greenhouse gases, and have attributable greenhouse gas emissions, in combination, in excess of its allowable emissions level as provided in section 722(a). Each ton of carbon dioxide equivalent for which a covered entity fails to demonstrate compliance under section 722(b) shall be a separate violation.

"(b) EXCESS EMISSIONS PENALTY.—

"(1) IN GENERAL.—The owner or operator of any covered entity that fails for any year to comply, on the deadline described in section 722(a) or (j), shall be liable for payment to the Administrator of an excess emissions penalty in the amount described in paragraph (2).

"(2) AMOUNT.—The amount of an excess emissions penalty required to be paid under paragraph (1) shall be equal to the product obtained by multiplying—

"(A) the tons of carbon dioxide equivalent of greenhouse gas emissions or attributable greenhouse gas emissions for which the owner or operator of a covered entity failed to comply under section 722(b) on the deadline; by

"(B) twice the fair market value of emission allowances established for emissions occurring in the calendar year for which the emission allowances were due.

"(3) TIMING.—An excess emissions penalty required under this subsection shall be immediately due and payable to the Administrator, without demand, in accordance with regulations promulgated by the Administrator, which shall be issued not later than 2 years after the date of enactment of this title.

"(4) NO EFFECT ON LIABILITY.—An excess emissions penalty due and payable by the owners or operators of a covered entity under this subsection shall not diminish the liability of the owners or operators for any fine, penalty, or assessment against the owners or operators for the same violation under any other provision of this Act or any other law.

"(c) EXCESS EMISSIONS ALLOWANCES.—The owner or operator of a covered entity that fails for any year to comply on the deadline described in section 722(a) or (j) shall be liable to offset the covered entity's excess combination of greenhouse gases emitted and attributable greenhouse gas emissions by an equal quantity of emission allowances during the following calendar year, or such longer period as the Administrator may prescribe. During the year in which the covered entity failed to comply, or any year thereafter, the Administrator may deduct the emission allowances required under this subsection to offset the covered entity's excess actual or attributable emissions.

"SEC. 724. TRADING.

"(a) PERMITTED TRANSACTIONS.—Except as otherwise provided in this title, the lawful holder of an emission allowance, compensatory allowance, or offset credit may, without restriction, sell, exchange, transfer, hold for compliance in accordance with section 722, or request that the Administrator retire the emission allowance, compensatory allowance, or offset credit.

"(b) NO RESTRICTION ON TRANSACTIONS.—The privilege of purchasing, holding, selling, exchanging, transferring, and requesting retirement of emission allowances, compensatory allowances, or offset credits shall not be restricted to the owners and operators of covered entities, except as otherwise provided in this title.

"(c) EFFECTIVENESS OF ALLOWANCE TRANSFERS.—No transfer of an allowance or offset credit shall be effective for purposes of this title until a certification of the transfer, signed by the designated representative of the transferor, is received and recorded by the Administrator in accordance with regulations promulgated under section 721(h).

"(d) ALLOWANCE TRACKING SYSTEM.—The regulations promulgated under section 721(h) shall include a system for issuing, recording, holding, and tracking allowances and offset credits that shall specify all necessary procedures and requirements for an orderly and competitive functioning of the allowance and offset credit markets. Such regulations shall provide for appropriate publication of the information in the system on the Internet.

"SEC. 725. BANKING AND BORROWING.

"(a) BANKING.—An emission allowance may be used to comply with section 722 or section 723 for emissions in—

"(1) the vintage year for the allowance; or

"(2) any calendar year subsequent to the vintage year for the allowance.

"(b) EXPIRATION.—

"(1) REGULATIONS.—The Administrator may establish by regulation criteria and procedures for determining whether, and for implementing a determination that, the expiration of an allowance or credit established or issued by the Administrator under this title, or expiration of the ability to use an international emission allowance to comply with section 722, is necessary to ensure the authenticity and integrity of allowances or credits or the allowance tracking system.

"(2) GENERAL RULE.—An allowance or credit established or issued by the Administrator under this title shall not expire unless—

"(A) it is retired by the Administrator as required under this title; or

"(B) it is determined to expire or to have expired by a specific date by the Administrator in accordance with regulations promulgated under paragraph (1).

"(3) INTERNATIONAL EMISSION ALLOWANCES.—The ability to use an international emission allowance to comply with section 722 shall not expire unless—

"(A) the allowance is retired by the Administrator as required by this title; or

"(B) the ability to use such allowance to meet such compliance obligation requirements is determined to expire or to have expired by a specific date by the Administrator in accordance with regulations promulgated under paragraph (1).

"(c) BORROWING FUTURE VINTAGE YEAR ALLOWANCES.—

"(1) BORROWING WITHOUT INTEREST.—In addition to the uses described in subsection (a), an emission allowance may be used to comply with section 722(a) or section 723 for emissions, production, importation, manufacture, or deliveries in the calendar year immediately preceding the vintage year for the allowance.

"(2) BORROWING WITH INTEREST.—

"(A) IN GENERAL.—A covered entity may demonstrate compliance under subsection (b) in a specific calendar year for up to 15 percent of its emissions by holding emission allowances with a vintage year 1 to 5 years later than that calendar year.

"(B) LIMITATIONS.—An emission allowance borrowed pursuant to this paragraph shall be an emission allowance that is established by the Administrator for a specific future calendar year under section 721(a) and that is held by the borrower.

"(C) PREPAYMENT OF INTEREST.—For each emission allowance that an owner or operator of a covered entity borrows pursuant to this paragraph, such owner or operator shall, at the time it borrows the allowance, hold for retirement by the Administrator a quantity of emission allowances that is equal to the product obtained by multiplying—

"(i) 0.08; by

"(ii) the number of years between the calendar year in which the allowance is being used to satisfy a compliance obligation and the vintage year of the allowance.

"SEC. 726. STRATEGIC RESERVE.

"(a) STRATEGIC RESERVE AUCTIONS.—

"(1) IN GENERAL.—Once each quarter of each calendar year for which allowances are established under section 721(a), the Administrator shall auction strategic reserve allowances.

"(2) RESTRICTION TO COVERED ENTITIES.—In each auction conducted under paragraph (1), only covered entities that the Administrator expects will be required to comply with section 722 in the following calendar year shall be eligible to make purchases.

"(b) POOL OF EMISSION ALLOWANCES FOR STRATEGIC RESERVE AUCTIONS.—

"(1) FILLING THE STRATEGIC RESERVE INITIALLY.—

"(A) IN GENERAL.—The Administrator shall, not later than 2 years after the date of enactment of this title, establish a strategic reserve account, and shall place in that account an amount of emission allowances established under section 721(a) for each calendar year from 2012 through 2050 in the amounts specified in subparagraph (B) of this paragraph.

"(B) AMOUNT.—The amount referred to in subparagraph (A) shall be—

"(i) for each of calendar years 2012 through 2019, 1 percent of the quantity of emission allowances established for that year pursuant to section 721(e)(1);

"(ii) for each of calendar years 2020 through 2029, 2 percent of the quantity of emission allowances established for that year pursuant to section 721(e)(1); and

"(iii) for each of calendar years 2030 through 2050, 3 percent of the quantity of emission allowances established for that year pursuant to section 721(e)(1).

"(C) EFFECT ON OTHER PROVISIONS.—Any provision in this title (except for subparagraph (B) of this paragraph) that refers to a quantity or percentage of the emission allowances established for a calendar year under section 721(a) shall be considered to refer to the amount of emission allowances as determined pursuant to section 721(e), less any emission allowances established for that year that are placed in the strategic reserve account under this paragraph.

"(2) SUPPLEMENTING THE STRATEGIC RESERVE.—The Administrator shall also—

"(A) at the end of each calendar year, transfer to the strategic reserve account each emission allowance that was offered for sale but not sold at any auction conducted under section 791; and

"(B) transfer emission allowances established under subsection (g) from auction proceeds, and deposit them into the strategic reserve, to the extent necessary to maintain the reserve at its original size.

"(c) MINIMUM STRATEGIC RESERVE AUCTION PRICE.—

"(1) IN GENERAL.—At each strategic reserve auction, the Administrator shall offer emission allowances for sale beginning at a minimum price per emission allowance, which shall be known as the 'minimum strategic reserve auction price'.

"(2) INITIAL MINIMUM STRATEGIC RESERVE AUCTION PRICES.—The minimum strategic reserve auction price shall be $28 (in constant 2009 dollars) for the strategic reserve auctions held in 2012. For the strategic reserve auctions held in 2013 and 2014, the minimum strategic reserve auction price shall be the strategic reserve auction price for the previous year increased by 5 percent plus the rate of inflation (as measured by the Consumer Price Index for All Urban Consumers).

"(3) MINIMUM STRATEGIC RESERVE AUCTION PRICE IN SUBSEQUENT YEARS.—For each strategic reserve auction held in 2015 and each year thereafter, the minimum strategic reserve auction price shall be 60 percent above a rolling 36-month average of the daily closing price for that year's emission allowance vintage as reported on registered carbon trading facilities, calculated using constant dollars.

"(d) QUANTITY OF EMISSION ALLOWANCES RELEASED FROM THE STRATEGIC RESERVE.—

"(1) INITIAL LIMITS.—For each of calendar years 2012 through 2016, the annual limit on the number of emission allowances from the strategic reserve account that may be auctioned is an amount equal to 5 percent of the emission allowances established for that calendar year under section 721(a). This limit does not apply to international offset credits sold on consignment pursuant to subsection (h).

"(2) LIMITS IN SUBSEQUENT YEARS.—For calendar year 2017 and each year thereafter, the annual limit on the number of emission allowances from the strategic reserve account that may be auctioned is an amount equal to 10 percent of the emission allowances established for that calendar year under section

721(a). This limit does not apply to international offset credits sold on consignment pursuant to subsection (h).

"(3) ALLOCATION OF LIMITATION.—One-fourth of each year's annual strategic reserve auction limit under this subsection shall be made available for auction in each quarter. Any allowances from the strategic reserve account that are made available for sale in a quarterly auction and not sold shall be rolled over and added to the quantity available for sale in the following quarter, except that allowances not sold at auction in the fourth quarter of a year shall not be rolled over to the following calendar year's auctions, but shall be returned to the strategic reserve account.

"(e) PURCHASE LIMIT.—

"(1) IN GENERAL.—Except as provided in paragraph (2) or (3), the annual number of emission allowances that a covered entity may purchase at the strategic reserve auctions in each calendar year shall not exceed 20 percent of the covered entity's emissions during the most recent year for which allowances or credits were retired under section 722.

"(2) 2012 LIMIT.—For calendar year 2012, the maximum aggregate number of emission allowances that a covered entity may purchase from that year's strategic reserve auctions shall be 20 percent of the covered entity's greenhouse gas emissions that the covered entity reported to the registry established under section 713 for 2011 and that would be subject to section 722(a) if occurring in later calendar years.

"(3) NEW ENTRANTS.—The Administrator shall, by regulation, establish a separate purchase limit applicable to entities that expect to become a covered entity in the year of the auction, permitting them to purchase emission allowances at the strategic reserve auctions in their first calendar year of operation in an amount of at least 20 percent of their expected combined emissions and attributable greenhouse gas emissions for that year.

"(f) DELEGATION OR CONTRACT.—Pursuant to regulations under this section, the Administrator may, by delegation or contract, provide for the conduct of strategic reserve auctions under the Administrator's supervision by other departments or agencies of the Federal Government or by nongovernmental agencies, groups, or organizations.

"(g) USE OF AUCTION PROCEEDS.—

"(1) DEPOSIT IN STRATEGIC RESERVE FUND.—The proceeds from strategic reserve auctions shall be placed in the Strategic Reserve Fund established under section 793(1), and shall be available without further appropriation or fiscal year limitation for the purposes described in this subsection.

"(2) INTERNATIONAL OFFSET CREDITS FOR REDUCED DEFORESTATION.—The Administrator shall use the proceeds from each strategic reserve auction to purchase international offset credits issued for reduced deforestation activities pursuant to section 743(e). The Administrator shall retire those international offset credits and establish a number of emission allowances equal to 80 percent of the number of international offset credits so retired. Emission allowances established under this paragraph shall be in addition to those established under section 721(a).

"(3) EMISSION ALLOWANCES.—The Administrator shall deposit emission allowances established under paragraph (2) in the strategic reserve, except that, with respect to any such emission allowances in excess of the amount necessary to fill the strategic reserve to its original size, the Administrator shall—

"(A) except as provided in subparagraph (B), assign a vintage year to the emission allowance, which shall be no earlier than the year in which the allowance is established under paragraph (2) and shall treat such allowances as ones that are not designated for distribution or auction for purposes of section 782(q) and (r); and

"(B) to the extent any such allowances cannot be assigned a vintage year because of the limitation in paragraph (4), retire the allowances.

"(4) LIMITATION.—In no case may the Administrator assign under paragraph (3)(A) more emission allowances to a vintage year than the number of emission allowances from that vintage year that were placed in the strategic reserve account under subsection (b)(1).

"(h) AVAILABILITY OF INTERNATIONAL OFFSET CREDITS FOR AUCTION.—

"(1) IN GENERAL.—The regulations promulgated under section 721(h) shall allow any entity holding international offset credits from reduced deforestation issued under section 743(e) to request that the Administrator include such offset credits in an upcoming strategic reserve auction. The regulations shall provide that—

"(A) such international offset credits will be used to fill bid orders only after the supply of strategic reserve allowances available for sale at that auction has been depleted;

"(B) international offset credits may be sold at a strategic reserve auction under this subsection only if the Administrator determines that it is highly likely that covered entities will, to cover emissions occurring in the year the auction is held, use offset credits to demonstrate compliance under section 722 for emissions equal to or greater than 80 percent of 2 billion tons of carbon dioxide equivalent;

"(C) upon sale of such international offset credits, the Administrator shall retire those international offset credits, and establish and provide to the purchasers a number of emission allowances equal to 80 percent of the number of international offset credits so retired, which allowances shall be in addition to those established under section 721(a); and

"(D) for international offset credits sold pursuant to this subsection, the proceeds for the entity that offered the international offset credits for sale shall be the lesser of—

"(i) the average daily closing price for international offset credits sold on registered exchanges (or if such price is unavailable, the average price as determined by the Administrator) during the six months prior to the strategic reserve auction at which they were auctioned, with the remaining funds collected upon the sale of the international offset credits deposited in the Treasury; and

"(ii) the amount received for the international offset credits at the auction.

"(2) PROCEEDS.—For international offset credits sold pursuant to this subsection, notwithstanding section 3302 of title 31, United States Code, or any other provision of law, within 90 days of receipt, the United States shall transfer the proceeds from the auction, as defined in paragraph (1)(D), to the entity that offered the international offset credits for sale. No funds transferred from a purchaser to a seller of international offset credits under this paragraph shall be held by any officer or employee of the United States or treated for any purpose as public monies.

"(3) PRICING.—When the Administrator acts under this subsection as the agent of an entity in possession of international offset credits, the Administrator is not obligated to obtain the highest price possible for the international offset credits, and instead shall auction such international offset credits in the same manner and pursuant to the same rules (except as modified in paragraph (1)) as set forth for auctioning strategic reserve allowances. Entities requesting that such international offset credits be offered for sale at a strategic reserve auction may not set a minimum reserve price for their international offset credits that is different than the minimum strategic reserve auction price set pursuant to subsection (c).

"(i) INITIAL REGULATIONS.—Not later than 24 months after the date of enactment of this title, the Administrator shall promulgate regulations, in consultation with other appropriate agencies, governing the auction of allowances under this section. Such regulations shall include the following requirements:

"(1) FREQUENCY; FIRST AUCTION.—Auctions shall be held four times per year at regular intervals, with the first auction to be held no later than March 31, 2012.

"(2) AUCTION FORMAT.—Auctions shall follow a single-round, sealed-bid, uniform price format.

"(3) PARTICIPATION; FINANCIAL ASSURANCE.—Auctions shall be open to any covered entity eligible to purchase emission allowances at the auction under subsection (a)(2), except that the Administrator may establish financial assurance requirements to ensure that auction participants can and will perform on their bids.

"(4) DISCLOSURE OF BENEFICIAL OWNERSHIP.—Each bidder in an auction shall be required to disclose the person or entity sponsoring or benefitting from the bidder's participation in the auction if such person or entity is, in whole or in part, other than the bidder.

"(5) PURCHASE LIMITS.—No person may, directly or in concert with another participant, purchase more than 20 percent of the allowances offered for sale at any quarterly auction.

"(6) PUBLICATION OF INFORMATION.—After the auction, the Administrator shall, in a timely fashion, publish the identities of winning bidders, the quantity of allowances obtained by each winning bidder, and the auction clearing price.

"(7) OTHER REQUIREMENTS.—The Administrator may include in the regulations such other requirements or provisions as the Administrator, in consulta-

tion with other agencies as appropriate, considers appropriate to promote effective, efficient, transparent, and fair administration of auctions under this section.

"(j) REVISION OF REGULATIONS.—The Administrator may, at any time, in consultation with other agencies as appropriate, revise the initial regulations promulgated under subsection (i). Such revised regulations need not meet the requirements identified in subsection (i) if the Administrator determines that an alternative auction design would be more effective, taking into account factors including costs of administration, transparency, fairness, and risks of collusion or manipulation. In determining whether and how to revise the initial regulations under this subsection, the Administrator shall not consider maximization of revenues to the Federal Government.

"SEC. 727. PERMITS.

"(a) PERMIT PROGRAM.—For stationary sources subject to title V of this Act, that are covered entities, the provisions of this title shall be implemented by permits issued to such covered entities (and enforced) in accordance with the provisions of title V, as modified by this title. Any such permit issued by the Administrator, or by a State with an approved permit program, shall require the owner or operator of a covered entity to hold emission allowances or offset credits at least equal to the total annual amount of carbon dioxide equivalents for its combined emissions and attributable greenhouse gas emissions to which section 722 applies. No such permit shall be issued that is inconsistent with the requirements of this title, and title V as applicable. Nothing in this section regarding compliance plans or in title V shall be construed as affecting allowances or offset credits. Submission of a statement by the owner or operator, or the designated representative of the owners and operators, of a covered entity that the owners and operators will hold emission allowances or offset credits for the entity's combined emissions and attributable greenhouse gas emissions to which section 722 applies shall be deemed to meet the proposed and approved planning requirements of title V. Recordation by the Administrator of transfers of emission allowances shall amend automatically all applicable proposed or approved permit applications, compliance plans, and permits.

"(b) MULTIPLE OWNERS.—No permit shall be issued under this section and no allowances or offset credits shall be disbursed under this title to a covered entity or any other person until the designated representative of the owners or operators has filed a certificate of representation with regard to matters under this title, including the holding and distribution of emission allowances and the proceeds of transactions involving emission allowances. Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, such a covered entity or other entity or where a utility or industrial customer purchases power under a long-term power purchase contract from an independent power production facility that is a covered entity, the certificate shall state—

"(1) that emission allowances and the proceeds of transactions involving emission allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement; or

"(2) if such multiple holders have expressly provided for a different distribution of emission allowances by contract, that emission allowances and the proceeds of transactions involving emission allowances will be deemed to be held or distributed in accordance with the contract.

A passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the covered entity or other entity shall not be deemed to be a holder of a legal, equitable, leasehold, or contractual interest for the purpose of holding or distributing emission allowances as provided in this subsection, during either the term of such leasehold or thereafter, unless expressly provided for in the leasehold agreement. Except as otherwise provided in this subsection, where all legal or equitable title to or interest in a covered entity, or other entity, is held by a single person, the certificate shall state that all emission allowances received by the entity are deemed to be held for that person.

"(c) PROHIBITION.—It shall be unlawful for any person to operate any stationary source subject to the requirements of this section except in compliance with the terms and requirements of a permit issued by the Administrator or a State with an approved permit program in accordance with this section. For purposes of this subsection, compliance, as provided in section 504(f), with a permit issued under title V which complies with this title for covered entities shall be deemed compliance with this subsection as well as section 502(a).

"(d) RELIABILITY.—Nothing in this section or title V shall be construed as requiring termination of operations of a stationary source that is a covered entity for failure to have an approved permit, or compliance plan, that is consistent with the re-

quirements in the second and fifth sentences of subsection (a) concerning the holding of emission allowances, compensatory allowances, international emission allowances, or offset allowances, except that any such covered entity may be subject to the applicable enforcement provision of section 113.

"(e) REGULATIONS.—The Administrator shall promulgate regulations to implement this section. To provide for permits required under this section, each State in which one or more stationary sources and that are covered entities are located shall submit, in accordance with this section and title V, revised permit programs for approval.

"SEC. 728. INTERNATIONAL EMISSION ALLOWANCES.

"(a) QUALIFYING PROGRAMS.—The Administrator, in consultation with the Secretary of State, may by rule designate an international climate change program as a qualifying international program if—

"(1) the program is run by a national or supranational foreign government, and imposes a mandatory absolute tonnage limit on greenhouse gas emissions from 1 or more foreign countries, or from 1 or more economic sectors in such a country or countries; and

"(2) the program is at least as stringent as the program established by this title, including provisions to ensure at least comparable monitoring, compliance, enforcement, quality of offsets, and restrictions on the use of offsets.

"(b) DISQUALIFIED ALLOWANCES.—An international emission allowance may not be held under section 722(d)(2) if it is in the nature of an offset instrument or allowance awarded based on the achievement of greenhouse gas emission reductions or avoidance, or greenhouse gas sequestration, that are not subject to the mandatory absolute tonnage limits referred to in subsection (a)(1).

"(c) RETIREMENT.—

"(1) ENTITY CERTIFICATION.—The owner or operator of an entity that holds an international emission allowance under section 722(d)(2) shall certify to the Administrator that such international emission allowance has not previously been used to comply with any foreign, international, or domestic greenhouse gas regulatory program.

"(2) RETIREMENT.—

"(A) FOREIGN AND INTERNATIONAL REGULATORY ENTITIES.—The Administrator, in consultation with the Secretary of State, shall seek, by whatever means appropriate, including agreements and technical cooperation on allowance tracking, to ensure that any relevant foreign, international, and domestic regulatory entities—

"(i) are notified of the use, for purposes of compliance with this title, of any international emission allowance; and

"(ii) provide for the disqualification of such international emission allowance for any subsequent use under the relevant foreign, international, or domestic greenhouse gas regulatory program, regardless of whether such use is a sale, exchange, or submission to satisfy a compliance obligation.

"(B) DISQUALIFICATION FROM FURTHER USE.—The Administrator shall ensure that, once an international emission allowance has been disqualified or otherwise used for purposes of compliance with this title, such allowance shall be disqualified from any further use under this title.

"(d) USE LIMITATIONS.—The Administrator may, by rule, modify the percentage applicable to international emission allowances under section 722(d)(2), consistent with the purposes of the Safe Climate Act.

"PART D—OFFSETS

"SEC. 731. OFFSETS INTEGRITY ADVISORY BOARD.

"(a) ESTABLISHMENT.—Not later than 30 days after the date of enactment of this title, the Administrator shall establish an independent Offsets Integrity Advisory Board. The Advisory Board shall make recommendations to the Administrator for use in promulgating and revising regulations under this part and part E, and for ensuring the overall environmental integrity of the programs established pursuant to those regulations.

"(b) MEMBERSHIP.—The Advisory Board shall be comprised of at least nine members. Each member shall be qualified by education, training, and experience to evaluate scientific and technical information on matters referred to the Board under this section. The Administrator shall appoint Advisory Board members, including a chair and vice-chair of the Advisory Board. Terms shall be 3 years in length, except for initial terms, which may be up to 5 years in length to allow staggering. Members

may be reappointed only once for an additional 3-year term, and such second term may follow directly after a first term.

"(c) ACTIVITIES.—The Advisory Board established pursuant to subsection (a) shall—

"(1) provide recommendations, not later than 90 days after the Advisory Board's establishment and periodically thereafter, to the Administrator regarding offset project types that should be considered for eligibility under section 733, taking into consideration relevant scientific and other issues, including—

"(A) the availability of a representative data set for use in developing the activity baseline;

"(B) the potential for accurate quantification of greenhouse gas reduction, avoidance, or sequestration for an offset project type;

"(C) the potential level of scientific and measurement uncertainty associated with an offset project type; and

"(D) any beneficial or adverse environmental, public health, welfare, social, economic, or energy effects associated with an offset project type;

"(2) make available to the Administrator its advice and comments on offset methodologies that should be considered under regulations promulgated pursuant to section 734(a) and (b), including methodologies to address the issues of additionality, activity baselines, measurement, leakage, uncertainty, permanence, and environmental integrity;

"(3) make available to the Administrator, and other relevant Federal agencies, its advice and comments regarding scientific, technical, and methodological issues specific to the issuance of international offset credits under section 743;

"(4) make available to the Administrator, and other relevant Federal agencies, its advice and comments regarding scientific, technical, and methodological issues associated with the implementation of part E;

"(5) make available to the Administrator its advice and comments on areas in which further knowledge is required to appraise the adequacy of existing, revised, or proposed methodologies for use under this part and part E, and describe the research efforts necessary to provide the required information; and

"(6) make available to the Administrator its advice and comments on other ways to improve or safeguard the environmental integrity of programs established under this part and part E.

"(d) SCIENTIFIC REVIEW OF OFFSET AND DEFORESTATION REDUCTION PROGRAMS.—Not later than January 1, 2017, and at five-year intervals thereafter, the Advisory Board shall submit to the Administrator and make available to the public an analysis of relevant scientific and technical information related to this part and part E. The Advisory Board shall review approved and potential methodologies, scientific studies, offset project monitoring, offset project verification reports, and audits related to this part and part E, and evaluate the net emissions effects of implemented offset projects. The Advisory Board shall recommend changes to offset methodologies, protocols, or project types, or to the overall offset program under this part, to ensure that offset credits issued by the Administrator do not compromise the integrity of the annual emission reductions established under section 703, and to avoid or minimize adverse effects to human health or the environment.

"SEC. 732. ESTABLISHMENT OF OFFSETS PROGRAM.

"(a) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with appropriate Federal agencies and taking into consideration the recommendations of the Advisory Board, shall promulgate regulations establishing a program for the issuance of offset credits in accordance with the requirements of this part. The Administrator shall periodically revise these regulations as necessary to meet the requirements of this part.

"(b) REQUIREMENTS.—The regulations described in subsection (a) shall—

"(1) authorize the issuance of offset credits with respect to qualifying offset projects that result in reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases;

"(2) ensure that such offset credits represent verifiable and additional greenhouse gas emission reductions or avoidance, or increases in sequestration;

"(3) ensure that offset credits issued for sequestration offset projects are only issued for greenhouse gas reductions that are permanent;

"(4) provide for the implementation of the requirements of this part; and

"(5) include as reductions in greenhouse gases reductions achieved through the destruction of methane and its conversion to carbon dioxide.

"(c) COORDINATION TO MINIMIZE NEGATIVE EFFECTS.—In promulgating and implementing regulations under this part, the Administrator shall act (including by rejecting projects, if necessary) to avoid or minimize, to the maximum extent prac-

ticable, adverse effects on human health or the environment resulting from the implementation of offset projects under this part.

"(d) OFFSET REGISTRY.—The Administrator shall establish within the allowance tracking system established under section 724(d) an Offset Registry for qualifying offset projects and offset credits issued with respect thereto under this part.

"(e) LEGAL STATUS OF OFFSET CREDIT.—An offset credit does not constitute a property right.

"(f) FEES.—The Administrator shall assess fees payable by offset project developers in an amount necessary to cover the administrative costs to the Environmental Protection Agency of carrying out the activities under this part. Amounts collected for such fees shall be available to the Administrator for carrying out the activities under this part to the extent provided in advance in appropriations Acts.

"SEC. 733. ELIGIBLE PROJECT TYPES.

"(a) LIST OF ELIGIBLE PROJECT TYPES.—

"(1) IN GENERAL.—As part of the regulations promulgated under section 732(a), the Administrator shall establish, and may periodically revise, a list of types of projects eligible to generate offset credits, including international offset credits, under this part.

"(2) ADVISORY BOARD RECOMMENDATIONS.—In determining the eligibility of project types, the Administrator shall take into consideration the recommendations of the Advisory Board. If a list established under this section differs from the recommendations of the Advisory Board, the regulations promulgated under section 732(a) shall include a justification for the discrepancy.

"(3) INITIAL DETERMINATION.—The Administrator shall establish the initial eligibility list under paragraph (1) not later than one year after the date of enactment of this title. The Administrator shall add additional project types to the list not later than 2 years after the date of enactment of this title. In determining the initial list, the Administrator shall give priority to consideration of offset project types that are recommended by the Advisory Board and for which there are well developed methodologies that the Administrator determines would meet the criteria of section 734, with such modifications as the Administrator deems appropriate. In issuing methodologies pursuant to section 734, the Administrator shall give priority to methodologies for offset types included on the initial eligibility list.

"(b) MODIFICATION OF LIST.—The Administrator—

"(1) may at any time, by rule, add a project type to the list established under subsection (a) if the Administrator, in consultation with appropriate Federal agencies and taking into consideration the recommendations of the Advisory Board, determines that the project type can generate additional reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases, subject to the requirements of this part;

"(2) may at any time, by rule, determine that a project type on the list does not meet the requirements of this part, and remove a project type from the list established under subsection (a), in consultation with appropriate Federal agencies and taking into consideration any recommendations of the Advisory Board; and

"(3) shall consider adding to or removing from the list established under subsection (a), at a minimum, project types proposed to the Administrator—

"(A) by petition pursuant to subsection (c); or

"(B) by the Advisory Board.

"(c) PETITION PROCESS.—Any person may petition the Administrator to modify the list established under subsection (a) by adding or removing a project type pursuant to subsection (b). Any such petition shall include a showing by the petitioner that there is adequate data to establish that the project type does or does not meet the requirements of this part. Not later than 12 months after receipt of such a petition, the Administrator shall either grant or deny the petition and publish a written explanation of the reasons for the Administrator's decision. The Administrator may not deny a petition under this subsection on the basis of inadequate Environmental Protection Agency resources or time for review.

"SEC. 734. REQUIREMENTS FOR OFFSET PROJECTS.

"(a) METHODOLOGIES.—As part of the regulations promulgated under section 732(a), the Administrator shall establish, for each type of offset project listed as eligible under section 733, the following:

"(1) ADDITIONALITY.—A standardized methodology for determining the additionality of greenhouse gas emission reductions or avoidance, or greenhouse gas sequestration, achieved by an offset project of that type. Such methodology shall ensure, at a minimum, that any greenhouse gas emission reduction or

avoidance, or any greenhouse gas sequestration, is considered additional only to the extent that it results from activities that—

"(A) are not required by or undertaken to comply with any law, including any regulation or consent order;

"(B) were not commenced prior to January 1, 2009, except in the case of—

"(i) offset project activities that commenced after January 1, 2001, and were registered as of the date of enactment of this title under an offset program with respect to which the Administrator has made an affirmative determination under section 740(a)(2); or

"(ii) activities that are readily reversible, with respect to which the Administrator may set an alternative earlier date under this subparagraph that is not earlier than January 1, 2001, where the Administrator determines that setting such an alternative date may produce an environmental benefit by removing an incentive to cease and then reinitiate activities that began prior to January 1, 2009;

"(C) are not receiving support under part E of this title or title IV, subtitle D of the American Clean Energy and Security Act of 2009; and

"(D) exceed the activity baseline established under paragraph (2).

"(2) ACTIVITY BASELINES.—A standardized methodology for establishing activity baselines for offset projects of that type. The Administrator shall set activity baselines to reflect a conservative estimate of business-as-usual performance or practices for the relevant type of activity such that the baseline provides an adequate margin of safety to ensure the environmental integrity of offsets calculated in reference to such baseline.

"(3) QUANTIFICATION METHODS.—A standardized methodology for determining the extent to which greenhouse gas emission reductions or avoidance, or greenhouse gas sequestration, achieved by an offset project of that type exceed a relevant activity baseline, including protocols for monitoring and accounting for uncertainty.

"(4) LEAKAGE.—A standardized methodology for accounting for and mitigating potential leakage, if any, from an offset project of that type, taking uncertainty into account.

"(b) ACCOUNTING FOR REVERSALS.—

"(1) IN GENERAL.—For each type of sequestration project listed under section 733, the Administrator shall establish requirements to account for and address reversals, including—

"(A) a requirement to report any reversal with respect to an offset project for which offset credits have been issued under this part;

"(B) provisions to require emission allowances to be held in amounts to fully compensate for greenhouse gas emissions attributable to reversals, and to assign responsibility for holding such emission allowances; and

"(C) any other provisions the Administrator determines necessary to account for and address reversals.

"(2) MECHANISMS.—The Administrator shall prescribe mechanisms to ensure that any sequestration with respect to which an offset credit is issued under this part results in a permanent net increase in sequestration, and that full account is taken of any actual or potential reversal of such sequestration, with an adequate margin of safety. The Administrator shall prescribe at least one of the following mechanisms to meet the requirements of this paragraph:

"(A) An offsets reserve, pursuant to paragraph (3).

"(B) Insurance that provides for purchase and provision to the Administrator for retirement of an amount of offset credits or emission allowances equal in number to the tons of carbon dioxide equivalents of greenhouse gas emissions released due to reversal.

"(C) Another mechanism that the Administrator determines satisfies the requirements of this part.

"(3) OFFSETS RESERVE.—

"(A) IN GENERAL.—An offsets reserve referred to in paragraph (2)(A) is a program under which, before issuance of offset credits under this part, the Administrator shall subtract and reserve from the quantity to be issued a quantity of offset credits based on the risk of reversal. The Administrator shall—

"(i) hold these reserved offset credits in the offsets reserve; and

"(ii) register the holding of the reserved offset credits in the Offset Registry established under section 732(d).

"(B) PROJECT REVERSAL.—

"(i) IN GENERAL.—If a reversal has occurred with respect an offset project for which offset credits are reserved under this paragraph, the Administrator shall remove offset credits from the offsets reserve and

cancel them to fully account for the tons of carbon dioxide equivalent that are no longer sequestered.

"(ii) INTENTIONAL REVERSALS.—If the Administrator determines that a reversal was intentional, the offset project developer for the relevant offset project shall place into the offsets reserve a quantity of offset credits, or combination of offset credits and emission allowances, equal in number to the number of reserve offset credits that were canceled due to the reversal pursuant to clause (i).

"(iii) UNINTENTIONAL REVERSALS.—If the Administrator determines that a reversal was unintentional, the offset project developer for the relevant offset project shall place into the offsets reserve a quantity of offset credits, or combination of offset credits and emission allowances, equal in number to half the number of offset credits that were reserved for that offset project, or half the number of reserve offset credits that were canceled due to the reversal pursuant to clause (i), whichever is less.

"(C) USE OF RESERVED OFFSET CREDITS.—Offset credits placed into the offsets reserve under this paragraph may not be used to comply with section 722.

"(c) CREDITING PERIODS.—

"(1) IN GENERAL.—For each offset project type, the Administrator shall specify a crediting period, and establish provisions for petitions for new crediting periods, in accordance with this subsection.

"(2) DURATION.—The crediting period shall be no less than 5 and no greater than 10 years for any project type other than those involving sequestration.

"(3) ELIGIBILITY.—An offset project shall be eligible to generate offset credits under this part only during the project's crediting period. During such crediting period, the project shall remain eligible to generate offset credits, subject to the methodologies and project type eligibility list that applied as of the date of project approval under section 735, except as provided in paragraph (4) of this subsection.

"(4) PETITION FOR NEW CREDITING PERIOD.—An offset project developer may petition for a new crediting period to commence after termination of a crediting period, subject to the methodologies and project type eligibility list in effect at the time when such petition is submitted. A petition may not be submitted under this paragraph more than 18 months before the end of the pending crediting period. The Administrator may limit the number of new crediting periods available for projects of particular project types.

"(d) ENVIRONMENTAL INTEGRITY.—In establishing the requirements under this section, the Administrator shall apply conservative assumptions or methods to maximize the certainty that the environmental integrity of the cap established under section 703 is not compromised.

"(e) PRE-EXISTING METHODOLOGIES.—In promulgating requirements under this section, the Administrator shall give due consideration to methodologies for offset projects existing as of the date of enactment of this title.

"(f) ADDED PROJECT TYPES.—The Administrator shall establish methodologies described in subsection (a), and, as applicable, requirements and mechanisms for reversals as described in subsection (b), for any project type that is added to the list pursuant to section 733.

"SEC. 735. APPROVAL OF OFFSET PROJECTS.

"(a) APPROVAL PETITION.—An offset project developer shall submit an offset project approval petition providing such information as the Administrator requires to determine whether the offset project is eligible for issuance of offset credits under rules promulgated pursuant to this part.

"(b) TIMING.—An approval petition shall be submitted to the Administrator under subsection (a) no later than the time at which an offset project's first verification report is submitted under section 736.

"(c) APPROVAL PETITION REQUIREMENTS.—As part of the regulations promulgated under section 732, the Administrator shall include provisions for, and shall specify, the required components of an offset project approval petition required under subsection (a), which shall include—

"(1) designation of an offset project developer; and

"(2) any other information that the Administrator considers to be necessary to achieve the purposes of this part.

"(d) APPROVAL AND NOTIFICATION.—Not later than 90 days after receiving a complete approval petition under subsection (a), the Administrator shall approve or deny the petition in writing and, if the petition is denied, provide the reasons for denial. After an offset project is approved, the offset project developer shall not be

required to resubmit an approval petition during the offset project's crediting period, except as provided in section 734(c)(4).

"(e) APPEAL.—The Administrator shall establish procedures for appeal and review of determinations made under subsection (d).

"(f) VOLUNTARY PREAPPROVAL REVIEW.—The Administrator may establish a voluntary preapproval review procedure, to allow an offset project developer to request the Administrator to conduct a preliminary eligibility review for an offset project. Findings of such reviews shall not be binding upon the Administrator. The voluntary preapproval review procedure—

"(1) shall require the offset project developer to submit such basic project information as the Administrator requires to provide a meaningful review; and

"(2) shall require a response from the Administrator not later than 6 weeks after receiving a request for review under this subsection.

"SEC. 736. VERIFICATION OF OFFSET PROJECTS.

"(a) IN GENERAL.—As part of the regulations promulgated under section 732(a), the Administrator shall establish requirements, including protocols, for verification of the quantity of greenhouse gas emission reductions or avoidance, or sequestration of greenhouse gases, resulting from an offset project. The regulations shall require that an offset project developer shall submit a report, prepared by a third-party verifier accredited under subsection (d), providing such information as the Administrator requires to determine the quantity of greenhouse gas emission reductions or avoidance, or sequestration of greenhouse gas, resulting from the offset project.

"(b) SCHEDULE.—The Administrator shall prescribe a schedule for the submission of verification reports under subsection (a).

"(c) VERIFICATION REPORT REQUIREMENTS.—The Administrator shall specify the required components of a verification report required under subsection (a), which shall include—

"(1) the name and contact information for a designated representative for the offset project developer;

"(2) the quantity of greenhouse gas reduced, avoided, or sequestered;

"(3) the methodologies applicable to the project pursuant to section 734;

"(4) a certification that the project meets the applicable requirements;

"(5) a certification establishing that the conflict of interest requirements in the regulations promulgated under subsection (d)(1) have been complied with; and

"(6) any other information that the Administrator considers to be necessary to achieve the purposes of this part.

"(d) VERIFIER ACCREDITATION.—

"(1) IN GENERAL.—As part of the regulations promulgated under section 732(a), the Administrator shall establish a process and requirements for periodic accreditation of third-party verifiers to ensure that such verifiers are professionally qualified and have no conflicts of interest.

"(2) STANDARDS.—

"(A) AMERICAN NATIONAL STANDARDS INSTITUTE ACCREDITATION.—The Administrator may accredit, or accept for purposes of accreditation under this subsection, verifiers accredited under the American National Standards Institute (ANSI) accreditation program in accordance with ISO 14065. The Administrator shall accredit, or accept for accreditation, verifiers under this subparagraph only if the Administrator finds that the American National Standards Institute accreditation program provides sufficient assurance that the requirements of this part will be met.

"(B) EPA ACCREDITATION.—As part of the regulations promulgated under section 732(a), the Administrator may establish accreditation standards for verifiers under this subsection, and may establish related training and testing programs and requirements.

"(3) PUBLIC ACCESSIBILITY.—Each verifier meeting the requirements for accreditation in accordance with this subsection shall be listed in a publicly accessible database, which shall be maintained and updated by the Administrator.

"SEC. 737. ISSUANCE OF OFFSET CREDITS.

"(a) DETERMINATION AND NOTIFICATION.—Not later than 90 days after receiving a complete verification report under section 736, the Administrator shall—

"(1) make the report publicly available;

"(2) make a determination of the quantity of greenhouse gas emissions reduced or avoided, or greenhouse gases sequestered, resulting from an offset project approved under section 735; and

"(3) notify the offset project developer in writing of such determination.

"(b) ISSUANCE OF OFFSET CREDITS.—The Administrator shall issue one offset credit to an offset project developer for each ton of carbon dioxide equivalent that the

Administrator has determined has been reduced, avoided, or sequestered during the period covered by a verification report submitted in accordance with section 736, only if—

"(1) the Administrator has approved the offset project pursuant to section 735; and

"(2) the relevant emissions reduction, avoidance, or sequestration has—

"(A) already occurred, during the offset project's crediting period; and

"(B) occurred after January 1, 2009.

"(c) APPEAL.—The Administrator shall establish procedures for appeal and review of determinations made under subsection (a).

"(d) TIMING.—Offset credits meeting the criteria established in subsection (b) shall be issued not later than 2 weeks following the verification determination made by the Administrator under subsection (a).

"(e) REGISTRATION.—The Administrator shall assign a unique serial number to and register each offset credit to be issued in the Offset Registry established under section 732(d).

"SEC. 738. AUDITS.

"(a) IN GENERAL.—The Administrator shall, on an ongoing basis, conduct random audits of offset projects, offset credits, and practices of third-party verifiers. In each year, the Administrator shall conduct audits, at minimum, for a representative sample of project types and geographic areas.

"(b) DELEGATION.—The Administrator may delegate to a State or tribal government the responsibility for conducting audits under this section if the Administrator finds that the program proposed by the State or tribal government provides assurances equivalent to those provided by the auditing program of the Administrator, and that the integrity of the offset program under this part will be maintained. Nothing in this subsection shall prevent the Administrator from conducting any audit the Administrator considers necessary and appropriate.

"SEC. 739. PROGRAM REVIEW AND REVISION.

"At least once every 5 years, the Administrator shall review and, based on new or updated information and taking into consideration the recommendations of the Advisory Board, update and revise—

"(1) the list of eligible project types established under section 733;

"(2) the methodologies established, including specific activity baselines, under section 734(a);

"(3) the reversal requirements and mechanisms established or prescribed under section 734(b);

"(4) measures to improve the accountability of the offsets program; and

"(5) any other requirements established under this part to ensure the environmental integrity and effective operation of this part.

"SEC. 740. EARLY OFFSET SUPPLY.

"(a) PROJECTS REGISTERED UNDER OTHER GOVERNMENT-RECOGNIZED PROGRAMS.—Except as provided in subsection (b) or (c), the Administrator shall issue one offset credit for each ton of carbon dioxide equivalent emissions reduced, avoided, or sequestered—

"(1) under an offset project that was started after January 1, 2001;

"(2) for which a credit was issued under any regulatory or voluntary greenhouse gas emission offset program that the Administrator determines—

"(A) was established under State or tribal law or regulation prior to January 1, 2009, or has been approved by the Administrator pursuant to subsection (e);

"(B) has developed offset project type standards, methodologies, and protocols through a public consultation process or a peer review process;

"(C) has made available to the public standards, methodologies, and protocols that require that credited emission reductions, avoidance, or sequestration are permanent, additional, verifiable, and enforceable;

"(D) requires that all emission reductions, avoidance, or sequestration be verified by a State regulatory agency or an accredited third-party independent verification body;

"(E) requires that all credits issued are registered in a publicly accessible registry, with individual serial numbers assigned for each ton of carbon dioxide equivalent emission reductions, avoidance, or sequestration; and

"(F) ensures that no credits are issued for activities for which the entity administering the program, or a program administrator or representative, has funded, solicited, or served as a fund administrator for the development of, the project or activity that caused the emission reduction, avoidance, or sequestration; and

"(3) for which the credit described in paragraph (2) is transferred to the Administrator.

"(b) INELIGIBLE CREDITS.—Subsection (a) shall not apply to offset credits that have expired or have been retired, canceled, or used for compliance under a program established under State or tribal law or regulation.

"(c) LIMITATION.—Notwithstanding subsection (a)(1), offset credits shall be issued under this section—

"(1) only for reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases, that occur after January 1, 2009; and

"(2) only until the date that is 3 years after the date of enactment of this title, or the date that regulations promulgated under section 732(a) take effect, whichever occurs sooner.

"(d) RETIREMENT OF CREDITS.—The Administrator shall seek to ensure that offset credits described in subsection (a)(2) are retired for purposes of use under a program described in subsection (b).

"(e) OTHER PROGRAMS.—(1) Offset programs that either—

"(A) were not established under State or tribal law; or

"(B) were not established prior to January 1, 2009,

but that otherwise meet all of the criteria of subsection (a)(2) may apply to the Administrator to be approved under this subsection as an eligible program for early offset credits under this section.

"(2) The Administrator shall approve any such program that the Administrator determines has criteria and methodologies of at least equal stringency to the criteria and methodologies of the programs established under State or tribal law that the Administrator determines meet the criteria of subsection (a)(2). The Administrator may approve types of offsets under any such program that are subject to criteria and methodologies of at least equal stringency to the criteria and methodologies for such types of offsets applied under the programs established under State or tribal law that the Administrator determines meet the criteria of subsection (a)(2). The Administrator shall make a determination on any application received under this subsection by no later than 180 days from the date of receipt of the application.

"SEC. 741. ENVIRONMENTAL CONSIDERATIONS.

"If the Administrator lists forestry projects as eligible offset project types under section 733, the Administrator, in consultation with appropriate Federal agencies, shall promulgate regulations for the selection and use of species in forestry and other relevant land management-related offset projects—

"(1) to ensure that native species are given primary consideration in such projects;

"(2) to enhance biological diversity in such projects;

"(3) to prohibit the use of federally designated or State-designated noxious weeds;

"(4) to prohibit the use of a species listed by a regional or State invasive plant authority within the applicable region or State; and

"(5) in accordance with widely accepted, environmentally sustainable forestry practices.

"SEC. 742. TRADING.

"Section 724 shall apply to the trading of offset credits.

"SEC. 743. INTERNATIONAL OFFSET CREDITS.

"(a) IN GENERAL.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, may issue, in accordance with this section, international offset credits based on activities that reduce or avoid greenhouse gas emissions, or increase sequestration of greenhouse gases, in a developing country. Such credits may be issued for projects pursuant to the requirements of this part or as provided in subsection (c), (d), or (e).

"(b) ISSUANCE.—

"(1) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with the Secretary of State, the Administrator of the United States Agency for International Development, and any other appropriate Federal agency, and taking into consideration the recommendations of the Advisory Board, shall promulgate regulations for implementing this section. Except as otherwise provided in this section, the issuance of international offset credits under this section shall be subject to the requirements of this part.

"(2) REQUIREMENTS FOR INTERNATIONAL OFFSET CREDITS.—The Administrator may issue international offset credits only if—

"(A) the United States is a party to a bilateral or multilateral agreement or arrangement that includes the country in which the project or measure achieving the relevant greenhouse gas emission reduction or avoidance, or greenhouse gas sequestration, has occurred;

"(B) such country is a developing country; and

"(C) such agreement or arrangement—

"(i) ensures that all of the requirements of this part apply to the issuance of international offset credits under this section; and

"(ii) provides for the appropriate distribution of international offset credits issued.

"(c) SECTOR-BASED CREDITS.—

"(1) IN GENERAL.—In order to minimize the potential for leakage and to encourage countries to take nationally appropriate mitigation actions to reduce or avoid greenhouse gas emissions, or sequester greenhouse gases, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall—

"(A) identify sectors of specific countries with respect to which the issuance of international offset credits on a sectoral basis is appropriate; and

"(B) issue international offset credits for such sectors only on a sectoral basis.

"(2) IDENTIFICATION OF SECTORS.—

"(A) GENERAL RULE.—For purposes of paragraph (1)(A), a sectoral basis shall be appropriate for activities—

"(i) in countries that have comparatively high greenhouse gas emissions, or comparatively greater levels of economic development; and

"(ii) that, if located in the United States, would be within a sector subject to the compliance obligation under section 722.

"(B) FACTORS.—In determining the sectors and countries for which international offset credits should be awarded only on a sectoral basis, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall consider the following factors:

"(i) The country's gross domestic product.

"(ii) The country's total greenhouse gas emissions.

"(iii) Whether the comparable sector of the United States economy is covered by the compliance obligation under section 722.

"(iv) The heterogeneity or homogeneity of sources within the relevant sector.

"(v) Whether the relevant sector provides products or services that are sold in internationally competitive markets.

"(vi) The risk of leakage if international offset credits were issued on a project-level basis, instead of on a sectoral basis, for activities within the relevant sector.

"(vii) The capability of accurately measuring, monitoring, reporting, and verifying the performance of sources across the relevant sector.

"(viii) Such other factors as the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, determines are appropriate to—

"(I) ensure the integrity of the United States greenhouse gas emissions cap established under section 703; and

"(II) encourage countries to take nationally appropriate mitigation actions to reduce or avoid greenhouse gas emissions, or sequester greenhouse gases.

"(3) SECTORAL BASIS.—

"(A) DEFINITION.—In this subsection, the term 'sectoral basis' means the issuance of international offset credits only for the quantity of sector-wide reductions or avoidance of greenhouse gas emissions, or sector-wide increases in sequestration of greenhouse gases, achieved across the relevant sector of the economy relative to a baseline level of performance established in an agreement or arrangement described in subsection (b)(2)(A) for the sector.

"(B) BASELINE.—The baseline for a sector shall be established at levels of greenhouse gas emissions lower than would occur under a business-as-usual scenario taking into account relevant domestic or international policies or incentives to reduce greenhouse gas emissions, among other factors, and additionality and performance shall be determined on the basis of such baseline.

"(d) CREDITS ISSUED BY AN INTERNATIONAL BODY.—

"(1) IN GENERAL.—The Administrator, in consultation with the Secretary of State, may issue international offset credits in exchange for instruments in the nature of offset credits that are issued by an international body established pursuant to the United Nations Framework Convention on Climate Change, to a protocol to such Convention, or to a treaty that succeeds such Convention. The Administrator may issue international offset credits under this subsection only if, in addition to the requirements of subsection (b), the Administrator has determined that the international body that issued the instruments has implemented substantive and procedural requirements for the relevant project type that provide equal or greater assurance of the integrity of such instruments as is provided by the requirements of this part.

"(2) RETIREMENT.—The Administrator, in consultation with the Secretary of State, shall seek, by whatever means appropriate, including agreements, arrangements, or technical cooperation with the international issuing body described in paragraph (1), to ensure that such body—

"(A) is notified of the Administrator's issuance, under this subsection, of an international offset credit in exchange for an instrument issued by such international body; and

"(B) provides, to the extent feasible, for the disqualification of the instrument issued by such international body for subsequent use under any relevant foreign or international greenhouse gas regulatory program, regardless of whether such use is a sale, exchange, or submission to satisfy a compliance obligation.

"(e) OFFSETS FROM REDUCED DEFORESTATION.—

"(1) REQUIREMENTS.—The Administrator, in accordance with the regulations promulgated under subsection (b)(1) and an agreement or arrangement described in subsection (b)(2)(A), shall issue international offset credits for greenhouse gas emission reductions achieved through activities to reduce deforestation only if, in addition to the requirements of subsection (b)—

"(A) the activity occurs in—

"(i) a country listed by the Administrator pursuant to paragraph (2);

"(ii) a state or province listed by the Administrator pursuant to paragraph (5); or

"(iii) a country listed by the Administrator pursuant to paragraph (6);

"(B) except as provided in paragraph (5) or (6), the quantity of the international offset credits is determined by comparing the national emissions from deforestation relative to a national deforestation baseline for that country established, in accordance with an agreement or arrangement described in subsection (b)(2)(A), pursuant to paragraph (4);

"(C) the reduction in emissions from deforestation has occurred before the issuance of the international offset credit and, taking into consideration relevant international standards, has been demonstrated using ground-based inventories, remote sensing technology, and other methodologies to ensure that all relevant carbon stocks are accounted;

"(D) the Administrator has made appropriate adjustments, such as discounting for any additional uncertainty, to account for circumstances specific to the country, including its technical capacity described in paragraph (2)(A);

"(E) the activity is designed, carried out, and managed—

"(i) in accordance with widely accepted, environmentally sustainable forest management practices;

"(ii) to promote or restore native forest species and ecosystems where practicable, and to avoid the introduction of invasive nonnative species;

"(iii) in a manner that gives due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

"(iv) with consultations with, and full participation of, local communities, indigenous peoples, and forest-dependent communities, in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, and monitoring and evaluation of activities; and

"(v) with equitable sharing of profits and benefits derived from offset credits with local communities, indigenous peoples, and forest-dependent communities; and

"(F) the reduction otherwise satisfies and is consistent with any relevant requirements established by an agreement reached under the auspices of the United Nations Framework Convention on Climate Change.

"(2) ELIGIBLE COUNTRIES.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for Inter-

national Development, and in accordance with an agreement or arrangement described in subsection (b)(2)(A), shall establish, and periodically review and update, a list of the developing countries that have the capacity to participate in deforestation reduction activities at a national level, including—

"(A) the technical capacity to monitor, measure, report, and verify forest carbon fluxes for all significant sources of greenhouse gas emissions from deforestation with an acceptable level of uncertainty, as determined taking into account relevant internationally accepted methodologies, such as those established by the Intergovernmental Panel on Climate Change;

"(B) the institutional capacity to reduce emissions from deforestation, including strong forest governance and mechanisms to equitably distribute deforestation resources for local actions; and

"(C) a land use or forest sector strategic plan that—

"(i) assesses national and local drivers of deforestation and forest degradation and identifies reforms to national policies needed to address them;

"(ii) estimates the country's emissions from deforestation and forest degradation;

"(iii) identifies improvements in data collection, monitoring, and institutional capacity necessary to implement a national deforestation reduction program; and

"(iv) establishes a timeline for implementing the program and transitioning to low-emissions development.

"(3) PROTECTION OF INTERESTS.—With respect to an agreement or arrangement described in subsection (b)(2)(A) with a country that addresses international offset credits under this subsection, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall seek to ensure the establishment and enforcement by such country of legal regimes, processes, standards, and safeguards that—

"(A) give due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

"(B) promote consultations with, and full participation of, forest-dependent communities and indigenous peoples in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, and monitoring and evaluation of activities; and

"(C) encourage equitable sharing of profits and benefits derived from international offset credits with local communities, indigenous peoples, and forest-dependent communities.

"(4) NATIONAL DEFORESTATION BASELINE.—A national deforestation baseline established under this subsection shall—

"(A) be national in scope;

"(B) be consistent with nationally appropriate mitigation commitments or actions with respect to deforestation, taking into consideration the average annual historical deforestation rates of the country during a period of at least 5 years, the applicable drivers of deforestation, and other factors to ensure additionality;

"(C) establish a trajectory that would result in zero net deforestation by not later than 20 years after the national deforestation baseline has been established;

"(D) be adjusted over time to take account of changing national circumstances;

"(E) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the country; and

"(F) be consistent with the national deforestation baseline, if any, established for such country under section 754(d)(1).

"(5) STATE-LEVEL OR PROVINCE-LEVEL ACTIVITIES.—

"(A) ELIGIBLE STATES OR PROVINCES.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall establish, and periodically review and update, a list of states or provinces in developing countries where—

"(i) the developing country is not included on the list of countries established pursuant to paragraph (6)(A);

"(ii) the state or province by itself is a major emitter of greenhouse gases from tropical deforestation on a scale commensurate to the emissions of other countries; and

"(iii) the state or province meets the eligibility criteria in paragraphs (2) and (3) for the geographic area under its jurisdiction.

"(B) ACTIVITIES.—The Administrator may issue international offset credits for greenhouse gas emission reductions achieved through activities to reduce deforestation at a state or provincial level that meet the requirements of this section. Such credits shall be determined by comparing the emissions from deforestation within that state or province relative to the state or province deforestation baseline for that state or province established, in accordance with an agreement or arrangement described in subsection (b)(2)(A), pursuant to subparagraph (C) of this paragraph.

"(C) STATE-LEVEL OR PROVINCE-LEVEL DEFORESTATION BASELINE.—A state-level or province-level deforestation baseline shall—

"(i) be consistent with any existing nationally appropriate mitigation commitments or actions for the country in which the activity is occurring, taking into consideration the average annual historical deforestation rates of the state or province during a period of at least 5 years, relevant drivers of deforestation, and other factors to ensure additionality;

"(ii) establish a trajectory that would result in zero net deforestation by not later than 20 years after the state-level or province-level deforestation baseline has been established; and

"(iii) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the state or province and adjusted to fully account for emissions leakage outside the state or province.

"(D) PHASE OUT.—Beginning 5 years after the first calendar year for which a covered entity must demonstrate compliance with section 722(a), the Administrator shall issue no further international offset credits for eligible state-level or province-level activities to reduce deforestation pursuant to this paragraph.

"(6) PROJECTS AND PROGRAMS TO REDUCE DEFORESTATION.—

"(A) ELIGIBLE COUNTRIES.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall establish, and periodically review and update, a list of developing countries that—

"(i) the Administrator determines, based on recent, credible, and reliable emissions data, account for less than 1 percent of global greenhouse gas emissions and less than 3 percent of global forest-sector and land use change greenhouse gas emissions; and

"(ii) have, or in the determination of the Administrator are making a good faith effort to develop, a land use or forest sector strategic plan that meets the criteria described in paragraph (2)(C).

"(B) ACTIVITIES.—The Administrator may issue international offset credits for greenhouse gas emission reductions achieved through project or program level activities to reduce deforestation in countries listed under subparagraph (A) that meet the requirements of this section. The quantity of international offset credits shall be determined by comparing the project-level or program-level emissions from deforestation to a deforestation baseline for such project or program established pursuant to subparagraph (C).

"(C) PROJECT-LEVEL OR PROGRAM-LEVEL BASELINE.—A project-level or program-level deforestation baseline shall—

"(i) be consistent with any existing nationally appropriate mitigation commitments or actions for the country in which the project or program is occurring, taking into consideration the average annual historical deforestation rates in the project or program boundary during a period of at least 5 years, applicable drivers of deforestation, and other factors to ensure additionality;

"(ii) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the project or program boundary; and

"(iii) be adjusted to fully account for emissions leakage outside the project or program boundary.

"(D) PHASE OUT.—(i) Beginning 5 years after the first calendar year for which a covered entity must demonstrate compliance with section 722(a), the Administrator shall issue no further international offset credits for project-level or program-level activities as described in this paragraph, except as provided in clause (ii).

"(ii) The Administrator may extend the phase out deadline for the issuance of international offset credits under this section by up to 8 years with respect to eligible activities taking place in a least developed nation,

which is a foreign country that the United Nations has identified as among the least developed of developing countries at the time that the Administrator determines to provide an extension, provided that the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, determines the nation—

"(I) lacks sufficient capacity to adopt and implement effective programs to achieve reductions in deforestation measured against national baselines;

"(II) is receiving support under part E to develop such capacity; and

"(III) has developed and is working to implement a credible national strategy or plan to reduce deforestation.

"(7) DEFORESTATION.—In implementing this subsection, the Administrator, taking into consideration the recommendations of the Advisory Board, may include forest degradation, or soil carbon losses associated with forested wetlands or peatlands, within the meaning of deforestation.

"(f) MODIFICATION OF REQUIREMENTS.—In promulgating regulations under subsection (b)(1) with respect to the issuance of international offset credits under subsection (c), (d), or (e), the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, may modify or omit a requirement of this part (excluding the requirements of this section) if the Administrator determines that the application of that requirement to such subsection is not feasible. In modifying or omitting such a requirement on the basis of infeasibility, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall ensure, with an adequate margin of safety, the integrity of international offset credits issued under this section and of the greenhouse gas emissions cap established pursuant to section 703.

"(g) AVOIDING DOUBLE COUNTING.—The Administrator, in consultation with the Secretary of State, shall seek, by whatever means appropriate, including agreements, arrangements, or technical cooperation, to ensure that activities on the basis of which international offset credits are issued under this section are not used for compliance with an obligation to reduce or avoid greenhouse gas emissions, or increase greenhouse gas sequestration, under a foreign or international regulatory system. In addition, no international offset credits shall be issued for emission reductions from activities with respect to which emission allowances were allocated under section 781 for distribution under part E.

"(h) LIMITATION.—The Administrator shall not issue international offset credits generated by projects based on the destruction of hydrofluorocarbons.

"PART E—SUPPLEMENTAL EMISSIONS REDUCTIONS FROM REDUCED DEFORESTATION

"SEC. 751. DEFINITIONS.

"In this part:

"(1) LEAKAGE PREVENTION ACTIVITIES.—The term 'leakage prevention activities' means activities in developing countries that are directed at preserving existing forest carbon stocks, including forested wetlands and peatlands, that might, absent such activities, be lost through leakage.

"(2) NATIONAL DEFORESTATION REDUCTION ACTIVITIES.—The term 'national deforestation reduction activities' means activities in developing countries that reduce a quantity of greenhouse gas emissions from deforestation that is calculated by measuring actual emissions against a national deforestation baseline established pursuant to section 754(d)(1) and (2).

"(3) SUBNATIONAL DEFORESTATION REDUCTION ACTIVITIES.—The term 'subnational deforestation reduction activities' means activities in developing countries that reduce a quantity of greenhouse gas emissions from deforestation that are calculated by measuring actual emissions using an appropriate baseline established by the Administrator that is less than national in scope.

"(4) SUPPLEMENTAL EMISSIONS REDUCTIONS.—The term 'supplemental emissions reductions' means greenhouse gas emissions reductions achieved from reduced or avoided deforestation under this part.

"(5) USAID.—The term 'USAID' means the United States Agency for International Development.

"SEC. 752. FINDINGS.

"Congress finds that—

"(1) as part of a global effort to mitigate climate change, it is in the national interest of the United States to assist developing countries to reduce and ultimately halt emissions from deforestation;

"(2) deforestation is one of the largest sources of greenhouse gas emissions in developing countries, amounting to roughly 20 percent of overall emissions globally;

"(3) recent scientific analysis shows that it will be substantially more difficult to limit the increase in global temperatures to less than 2 degrees centigrade above preindustrial levels without reducing and ultimately halting net emissions from deforestation;

"(4) reducing emissions from deforestation is highly cost-effective, compared to many other sources of emissions reductions;

"(5) in addition to contributing significantly to worldwide efforts to address global warming, this assistance will generate significant environmental and social cobenefits, including protection of biodiversity, ecosystem services, and forest-related livelihoods; and

"(6) Under the Bali Action Plan, developed country parties to the United Nations Framework Convention on Climate Change, including the United States, committed to 'enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation,' including, inter alia, consideration of 'improved access to adequate, predictable, and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country parties' .

"SEC. 753. SUPPLEMENTAL EMISSIONS REDUCTIONS THROUGH REDUCED DEFORESTATION.

"(a) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with the Administrator of USAID and any other appropriate agencies, shall promulgate regulations establishing a program to use emission allowances set aside for this purpose under section 781 to achieve the reduction of greenhouse gas emissions from deforestation in developing countries in accordance with the requirements of this part.

"(b) OBJECTIVES.—The objectives of the program established under this section shall be to—

"(1) achieve supplemental emissions reductions of at least 720,000,000 tons of carbon dioxide equivalent in 2020, a cumulative amount of at least 6,000,000,000 tons of carbon dioxide equivalent by December 31, 2025, and additional supplemental emissions reductions in subsequent years;

"(2) build capacity to reduce deforestation in developing countries experiencing deforestation, including preparing developing countries to participate in international markets for international offset credits for reduced emissions from deforestation; and

"(3) preserve existing forest carbon stocks in countries where such forest carbon may be vulnerable to international leakage, particularly in developing countries with largely intact native forests.

"SEC. 754. REQUIREMENTS FOR INTERNATIONAL DEFORESTATION REDUCTION PROGRAM.

"(a) ELIGIBLE COUNTRIES.—The Administrator may support activities under this part only with respect to a developing country that—

"(1) the Administrator, in consultation with the Administrator of USAID, determines is experiencing deforestation or forest degradation or has standing forest carbon stocks that may be at risk of deforestation or degradation; and

"(2) has entered into a bilateral or multilateral agreement or arrangement with the United States establishing the conditions of its participation in the program established under this part, which shall include an agreement to meet the standards established under subsection (d) for the activities to which those standards apply.

"(b) ACTIVITIES.—(1) Subject to the requirements of this part, the Administrator, in consultation with the Administrator of USAID, may support activities to achieve the objectives identified in section 753(b), including—

"(A) national deforestation reduction activities;

"(B) subnational deforestation reduction activities, including pilot activities that reduce greenhouse gas emissions but are subject to significant uncertainty;

"(C) activities to measure, monitor, and verify deforestation, avoided deforestation, and deforestation rates;

"(D) leakage prevention activities;

"(E) development of measurement, monitoring, and verification capacities to enable a country to quantify supplemental emissions reductions and to generate for sale offset credits from reduced or avoided deforestation;

"(F) development of governance structures to reduce deforestation and illegal logging;

"(G) enforcement of requirements for reduced deforestation or forest conservation;

"(H) efforts to combat illegal logging and increase enforcement cooperation;

"(I) providing incentives for policy reforms to achieve the objectives identified in section 753(b); and

"(J) monitoring and evaluation of the results of the activities conducted under this section.

"(2) ACTIVITIES SELECTED BY USAID.—

"(A) The Administrator of USAID, in consultation with the Administrator, may select for support and implementation pursuant to subsection (c) any of the activities described in paragraph (1), consistent with this part and the regulations promulgated under subsection (d), and subject to the requirement to achieve the objectives listed in section 753(b)(1).

"(B) With respect to the activities listed in subparagraphs (D) through (J) of paragraph (1), the Administrator of USAID, in consultation with the Administrator, shall have primary but not exclusive responsibility for selecting the activities to be supported and implemented.

"(3) INTERAGENCY COORDINATION.—The Administrator and the Administrator of USAID shall jointly develop and biennially update a strategic plan for meeting the objectives listed in section 753(b) and shall execute a memorandum of understanding delineating the agencies' respective roles in implementing this part.

"(c) MECHANISMS.—

"(1) IN GENERAL.—The Administrator may support activities to achieve the objectives identified in section 753(b) by—

"(A) developing and implementing programs and projects that achieve such objectives; and

"(B) distributing emission allowances to a country that is eligible under subsection (a), to any private or public group (including international organizations), or to an international fund established by an international agreement to which the United States is a party, to carry out activities to achieve such objectives.

"(2) USAID ACTIVITIES.—With respect to activities selected and implemented by the Administrator of USAID pursuant to (b)(2), the Administrator shall distribute emission allowances as provided in subparagraph (1) based upon the direction of the Administrator of USAID, subject to the availability of allowances for such activities.

"(3) IMPLEMENTATION THROUGH INTERNATIONAL ORGANIZATIONS.—If support is distributed through an international organization, the agency responsible for selecting activities in accordance with subparagraph (b)(1) or (2), in consultation with the Secretary of State, shall ensure the establishment and implementation of adequate mechanisms to apply and enforce the eligibility requirements and other requirements of this section.

"(4) ROLE OF THE SECRETARY OF STATE.—The Administrator may not distribute emission allowances to the government of another country or to an international organization or international fund unless the Secretary of State has concurred with such distribution.

"(d) STANDARDS.—The Administrator, in consultation with the Administrator of USAID, shall promulgate standards to ensure that supplemental emissions reductions achieved through supported activities are additional, measurable, verifiable, permanent, monitored, and account for leakage and uncertainty. In addition, such standards shall—

"(1) require the establishment of a national deforestation baseline for each country with national deforestation reduction activities that is used to account for reductions achieved from such activities;

"(2) provide that a national deforestation baseline established under paragraph (1) shall—

"(A) be national in scope;

"(B) be consistent with nationally appropriate mitigation commitments or actions with respect to deforestation, taking into consideration the average annual historical deforestation rates of the country during a period of at least 5 years and other factors to ensure additionality;

"(C) establish a trajectory that would result in zero net deforestation by not later than 20 years from the date the baseline is established;

"(D) be adjusted over time to take account of changing national circumstances;

"(E) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the country; and

"(F) be consistent with the national deforestation baseline, if any, established for such country under section 743(e)(4);

"(3) with respect to support provided pursuant to subsection (b)(1)(A) or (B), require supplemental emissions reductions to be achieved and verified prior to compensation through the distribution of emission allowances under this part;

"(4) with respect to accounting for subnational deforestation reduction activities that lack the standardized or precise measurement and monitoring techniques needed for a full accounting of changes in emissions or baselines, or are subject to other sources of uncertainty, apply a conservative discount factor to reflect the uncertainty regarding the levels of reductions achieved;

"(5) ensure that activities under this part shall be designed, carried out, and managed—

"(A) in accordance with widely accepted, environmentally sustainable forestry practices;

"(B) to promote native species and conservation or restoration of native forests, if practicable, and to avoid the introduction of invasive nonnative species;

"(C) in a manner that gives due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

"(D) with consultations with, and full participation of, local communities, indigenous peoples, and forest-dependent communities in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, and monitoring and evaluation of activities; and

"(E) with equitable sharing of profits and benefits derived from the activities with local communities, indigenous peoples, and forest-dependent communities; and

"(6) with respect to support for all activities under this part, seek to ensure the establishment and enforcement by the recipient country of legal regimes, standards, processes, and safeguards that—

"(A) give due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

"(B) promote consultations with local communities and indigenous peoples and forest-dependent communities in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, monitoring, and evaluation of activities under this part; and

"(C) encourage equitable sharing of profits and benefits from incentives for emissions reductions or leakage prevention with local communities, indigenous peoples, and forest-dependent communities.

"(e) EXPANSION OF SCOPE.—The Administrator, in consultation with the Administrator of USAID, may decide, taking into account any advice from the Advisory Board, to expand, where appropriate, the scope of activities under this part to include—

"(1) reduced emissions from forest degradation; or

"(2) reduced soil carbon-derived emissions associated with deforestation and degradation of forested wetlands and peatlands.

"(f) ACCOUNTING.—The Administrator shall establish a publicly accessible registry of the supplemental emissions reductions achieved through support provided under this part each year, after appropriately discounting for uncertainty and other relevant factors as required by the standards established under subsection (d).

"(g) TRANSITION TO NATIONAL REDUCTIONS.—Beginning 5 years after the date that a country entered into the agreement or arrangement required under subsection (a)(2), the Administrator shall provide no further compensation through emission allowances to that country under this part for any subnational deforestation reduction activities, except that the Administrator may extend this period by an additional 5 years if the Administrator, in consultation with the Administrator of USAID, determines that—

"(1) the country is making substantial progress towards adopting and implementing a program to achieve reductions in deforestation measured against a national baseline;

"(2) the greenhouse gas emissions reductions achieved are not resulting in significant leakage; and

"(3) the greenhouse gas emissions reductions achieved are being appropriately discounted to account for any leakage that is occurring.

The limitation under this subsection shall not apply to support for activities to further the objectives listed in section 753(b)(2) or (3).

"(h) COORDINATION WITH U.S. FOREIGN ASSISTANCE.—Subject to the direction of the President, the Administrator and the Administrator of USAID shall, to the extent practicable and consistent with the objectives of this program, seek to align activities under this section with broader development, poverty alleviation, or natural resource management objectives and initiatives in the recipient country.

"(i) SUPPORT AS SUPPLEMENT.—The provision of support for activities under this part shall be used to supplement, and not to supplant, any other Federal, State, or local support available to carry out such qualifying activities under this part.

"SEC. 755. REPORTS AND REVIEWS.

"(a) REPORTS.—Not later than January 1, 2014, and annually thereafter, the Administrator and the Administrator of USAID shall submit to the Committee on Energy and Commerce and the Committee on Foreign Affairs of the House of Representatives, and the Committee on Environment and Public Works and the Committee on Foreign Relations of the Senate, and make available to the public, a report on the support provided under this part during the prior fiscal year. The report shall include—

"(1) a statement of the quantity of supplemental emissions reductions for which compensation in the form of emission allowances was provided under this part during the prior fiscal year, as registered by the Administrator under section 754(f); and

"(2) a description of the national and subnational deforestation reduction activities, capacity-building activities, and leakage prevention activities supported under this part, including a statement of the quantity of emission allowances distributed to each recipient for each activity during the prior fiscal year, and a description of what was accomplished through each of the activities.

"(b) REVIEWS.—Not later than 4 years after the date of enactment of this title and every 5 years thereafter, the Administrator and the Administrator of USAID and taking into consideration any evaluation by or recommendations from the Advisory Board established under section 731, shall conduct a review of the activities undertaken pursuant to this part and make any appropriate changes in the program established under this part based on the findings of the review. The review shall include the effects of the activities on—

"(1) total documented carbon stocks of each country that directly or indirectly received support under this part compared with such country's national deforestation baseline established under section 754(d)(1);

"(2) the number of countries with the capacity to generate for sale instruments in the nature of offset credits from forest-related activities, and the amount of such activities;

"(3) forest governance in each country that directly or indirectly received support under this part;

"(4) indigenous peoples and forest-dependent communities residing in areas affected by such activities;

"(5) biodiversity and ecosystem services within forested areas associated with the activities;

"(6) international leakage; and

"(7) any program or mechanism established under the United Nations Framework Convention on Climate Change related to greenhouse gas emissions from deforestation.

"SEC. 756. LEGAL EFFECT OF PART.

"(1) IN GENERAL.—Nothing in this part supersedes, limits, or otherwise affects any restriction imposed by Federal law (including regulations) on any interaction between an entity located in the United States and an entity located in a foreign country.

"(2) ROLE OF THE SECRETARY OF STATE.—Nothing in this part shall be construed as affecting the role of the Secretary of State or the responsibilities of the Secretary under section 622 (c) of the Foreign Assistance Act of 1961.".

SEC. 312. DEFINITIONS.

Title VII of the Clean Air Act, as added by section 311 of this Act, is amended by inserting before part A the following new section:

"SEC. 700. DEFINITIONS.

"In this title:

"(1) ADDITIONAL.—The term 'additional', when used with respect to reductions or avoidance of greenhouse gas emissions, or to sequestration of greenhouse gases, means reductions, avoidance, or sequestration that result in a lower level of net greenhouse gas emissions or atmospheric concentrations than would occur in the absence of an offset project.

"(2) ADDITIONALITY.—The term 'additionality' means the extent to which reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases, are additional.

"(3) ADVISORY BOARD.—The term 'Advisory Board' means the Offsets Integrity Advisory Board established under section 731.

"(4) AFFILIATED.—The term 'affiliated'—

"(A) when used in relation to an entity means owned or controlled by, or under common ownership or control with, another entity, as determined by the Administrator; and

"(B) when used in relation to a natural gas local distribution company, means owned or controlled by, or under common ownership or control with, another natural gas local distribution company, as determined by the Administrator.

"(5) ALLOWANCE.—The term 'allowance' means a limited authorization to emit, or have attributable greenhouse gas emissions in an amount of, 1 ton of carbon dioxide equivalent of a greenhouse gas in accordance with this title; it includes an emission allowance, a compensatory allowance, or an international emission allowance.

"(6) ATTRIBUTABLE GREENHOUSE GAS EMISSIONS.—The term 'attributable greenhouse gas emissions' means—

"(A) for a covered entity that is a fuel producer or importer described in paragraph (13)(B), greenhouse gases that would be emitted from the combustion of any petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, produced or imported by that covered entity for sale or distribution in interstate commerce, assuming no capture and sequestration of any greenhouse gas emissions;

"(B) for a covered entity that is an industrial gas producer or importer described in paragraph (13)(C), the tons of carbon dioxide equivalent of fossil fuel-based carbon dioxide, nitrous oxide, any fluorinated gas, other than nitrogen trifluoride, that is a greenhouse gas, or any combination thereof—

"(i) produced or imported by such covered entity during the previous calendar year for sale or distribution in interstate commerce; or

"(ii) released as fugitive emissions in the production of fluorinated gas; and

"(C) for a natural gas local distribution company described in paragraph (13)(J), greenhouse gases that would be emitted from the combustion of the natural gas, and any other gas meeting the specifications for commingling with natural gas for purposes of delivery, that such entity delivered during the previous calendar year to customers that are not covered entities, assuming no capture and sequestration of that greenhouse gas.

"(7) BIOLOGICAL SEQUESTRATION; BIOLOGICALLY SEQUESTERED.—The terms 'biological sequestration' and 'biologically sequestered' mean the removal of greenhouse gases from the atmosphere by terrestrial biological means, such as by growing plants, and the storage of those greenhouse gases in plants or soils.

"(8) CAPPED EMISSIONS.—The term 'capped emissions' means greenhouse gas emissions to which section 722 applies, including emissions from the combustion of natural gas, petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid to which section 722(b)(2) or (8) applies.

"(9) CAPPED SOURCE.—The term 'capped source' means a source that directly emits capped emissions.

"(10) CARBON DIOXIDE EQUIVALENT.—The term 'carbon dioxide equivalent' means the unit of measure, expressed in metric tons, of greenhouse gases as provided under section 711 or 712.

"(11) CARBON STOCK.—The term 'carbon stock' means the quantity of carbon contained in a biological reservoir or system which has the capacity to accumulate or release carbon.

"(12) COMPENSATORY ALLOWANCE.—The term 'compensatory allowance' means an allowance issued under section 721(f).

"(13) COVERED ENTITY.—The term 'covered entity' means each of the following:

"(A) Any electricity source.

"(B) Any stationary source that produces, and any entity that (or any group of two or more affiliated entities that, in the aggregate) imports, for sale or distribution in interstate commerce in 2008 or any subsequent year, petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, the combustion of which would emit more than 25,000 tons of carbon dioxide equivalent, as determined by the Administrator.

"(C) Any stationary source that produces, and any entity that (or any group of two or more affiliated entities that, in the aggregate) imports, for

sale or distribution in interstate commerce, in bulk, or in products designated by the Administrator, in 2008 or any subsequent year more than 25,000 tons of carbon dioxide equivalent of—

"(i) fossil fuel-based carbon dioxide;

"(ii) nitrous oxide;

"(iii) perfluorocarbons;

"(iv) sulfur hexafluoride;

"(v) any other fluorinated gas, except for nitrogen trifluoride, that is a greenhouse gas, as designated by the Administrator under section 711(b) or (c); or

"(vi) any combination of greenhouse gases described in clauses (i) through (vi).

"(D) Any stationary source that has emitted 25,000 or more tons of carbon dioxide equivalent of nitrogen trifluoride in 2008 or any subsequent year.

"(E) Any geologic sequestration site.

"(F) Any stationary source in the following industrial sectors:

"(i) Adipic acid production.

"(ii) Primary aluminum production.

"(iii) Ammonia manufacturing.

"(iv) Cement production, excluding grinding-only operations.

"(v) Hydrochlorofluorocarbon production.

"(vi) Lime manufacturing.

"(vii) Nitric acid production.

"(viii) Petroleum refining.

"(ix) Phosphoric acid production.

"(x) Silicon carbide production.

"(xi) Soda ash production.

"(xii) Titanium dioxide production.

"(xiii) Coal-based liquid or gaseous fuel production.

"(G) Any stationary source in the chemical or petrochemical sector that, in 2008 or any subsequent year—

"(i) produces acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or methanol; or

"(ii) produces a chemical or petrochemical product if producing that product results in annual combustion plus process emissions of 25,000 or more tons of carbon dioxide equivalent.

"(H) Any stationary source that—

"(i) is in one of the following industrial sectors: ethanol production; ferroalloy production; fluorinated gas production; food processing; glass production; hydrogen production; iron and steel production; lead production; pulp and paper manufacturing; and zinc production; and

"(ii) has emitted 25,000 or more tons of carbon dioxide equivalent in 2008 or any subsequent year.

"(I) Any fossil fuel-fired combustion device (such as a boiler) or grouping of such devices that—

"(i) is all or part of an industrial source not specified in subparagraph (D), (F), (G), or (H); and

"(ii) has emitted 25,000 or more tons of carbon dioxide equivalent in 2008 or any subsequent year.

"(J) Any natural gas local distribution company that (or any group of 2 or more affiliated natural gas local distribution companies that, in the aggregate) in 2008 or any subsequent year, delivers 460,000,000 cubic feet or more of natural gas to customers that are not covered entities.

"(14) CREDITING PERIOD.—The term 'crediting period' means the period with respect to which an offset project is eligible to earn offset credits under part D, as determined under section 734(c).

"(15) DESIGNATED REPRESENTATIVE.—The term 'designated representative' means, with respect to a covered entity, a reporting entity, an offset project developer, or any other entity receiving or holding allowances or offset credits under this title, an individual authorized, through a certificate of representation submitted to the Administrator by the owners and operators or similar entity official, to represent the owners and operators or similar entity official in all matters pertaining to this title (including the holding, transfer, or disposition of allowances or offset credits), and to make all submissions to the Administrator under this title.

"(16) DEVELOPING COUNTRY.—The term 'developing country' means a country eligible to receive official development assistance according to the income guide-

lines of the Development Assistance Committee of the Organization for Economic Cooperation and Development.

"(17) DOMESTIC OFFSET CREDIT.—The term 'domestic offset credit' means an offset credit issued under part D, other than an international offset credit.

"(18) ELECTRICITY SOURCE.—The term 'electricity source' means a stationary source that includes one or more utility units.

"(19) EMISSION.—The term 'emission' means the release of a greenhouse gas into the ambient air. Such term does not include gases that are captured and sequestered, except to the extent that they are later released into the atmosphere, in which case compliance must be demonstrated pursuant to section 722(b)(5).

"(20) EMISSION ALLOWANCE.—The term 'emission allowance' means an allowance established under section 721(a) or section 726(g)(2) or (h)(1)(C).

"(21) FAIR MARKET VALUE.—The term 'fair market value' means the average daily closing price on registered exchanges or, if such a price is unavailable, the average price as determined by the Administrator, during a specified time period, of an emission allowance.

"(22) FEDERAL LAND.—The term 'Federal land' means land that is owned by the United States, other than land held in trust for an Indian or Indian tribe.

"(23) FOSSIL FUEL.—The term 'fossil fuel' means natural gas, petroleum, or coal, or any form of solid, liquid, or gaseous fuel derived from such material, including consumer products that are derived from such materials and are combusted.

"(24) FOSSIL FUEL-FIRED.—The term 'fossil fuel-fired' means powered by combustion of fossil fuel, alone or in combination with any other fuel, regardless of the percentage of fossil fuel consumed.

"(25) FUGITIVE EMISSIONS.—The term 'fugitive emissions' means emissions from leaks, valves, joints, or other small openings in pipes, ducts, or other equipment, or from vents.

"(26) GEOLOGIC SEQUESTRATION; GEOLOGICALLY SEQUESTERED.—The terms 'geologic sequestration' and 'geologically sequestered' mean the sequestration of greenhouse gases in subsurface geologic formations for purposes of permanent storage.

"(27) GEOLOGIC SEQUESTRATION SITE.—The term 'geologic sequestration site' means a site where carbon dioxide is geologically sequestered.

"(28) GREENHOUSE GAS.—The term 'greenhouse gas' means any gas described in section 711(a) or designated under section 711(b), (c), or (e), except to the extent that it is regulated under title VI.

"(29) HIGH CONSERVATION PRIORITY LAND.—The term 'high conservation priority land' means land that is not Federal land and is—

"(A) globally or State ranked as critically imperiled or imperiled under a State Natural Heritage Program; or

"(B) old-growth or late-successional forest, as identified by the office of the State Forester or relevant State agency with regulatory jurisdiction over forestry activities.

"(30) HOLD.—The term 'hold' means, with respect to an allowance or offset credit, to have in the appropriate account in the allowance tracking system, or submit to the Administrator for recording in such account.

"(31) INDUSTRIAL SOURCE.—The term 'industrial source' means any stationary source that—

"(A) is not an electricity source; and

"(B) is in—

"(i) the manufacturing sector (as defined in North American Industrial Classification System codes 31, 32, and 33); or

"(ii) the natural gas processing or natural gas pipeline transportation sector (as defined in North American Industrial Classification System codes 211112 or 486210).

"(32) INTERNATIONAL EMISSION ALLOWANCE.—The term 'international emission allowance' means a tradable authorization to emit 1 ton of carbon dioxide equivalent of greenhouse gas that is issued by a national or supranational foreign government pursuant to a qualifying international program designated by the Administrator pursuant to section 728(a).

"(33) INTERNATIONAL OFFSET CREDIT.—The term 'international offset credit' means an offset credit issued by the Administrator under section 743.

"(34) LEAKAGE.—The term 'leakage' means a significant increase in greenhouse gas emissions, or significant decrease in sequestration, which is caused by an offset project and occurs outside the boundaries of the offset project.

"(35) MINERAL SEQUESTRATION.—The term 'mineral sequestration' means sequestration of carbon dioxide from the atmosphere by capturing carbon dioxide

into a permanent mineral, such as the aqueous precipitation of carbonate minerals that results in the storage of carbon dioxide in a mineral form.

"(36) NATURAL GAS LIQUID.—The term 'natural gas liquid' means ethane, butane, isobutane, natural gasoline, and propane which is ready for commercial sale or use.

"(37) NATURAL GAS LOCAL DISTRIBUTION COMPANY.—The term 'natural gas local distribution company' has the meaning given the term 'local distribution company' in section 2(17) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3301(17)).

"(38) OFFSET CREDIT.—The term 'offset credit' means a credit issued under part D.

"(39) OFFSET PROJECT.—The term 'offset project' means a project or activity that reduces or avoids greenhouse gas emissions, or sequesters greenhouse gases, and for which offset credits are issued under part D.

"(40) OFFSET PROJECT DEVELOPER.—The term 'offset project developer' means the individual or entity designated as the offset project developer in an offset project approval petition under section 735(c)(1).

"(41) PETROLEUM.—The term 'petroleum' includes crude oil, tar sands, oil shale, and heavy oils.

"(42) RENEWABLE BIOMASS.—The term 'renewable biomass' means any of the following:

"(A) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 1, 2009.

"(B) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.

"(C) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not municipal solid waste, recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).

"(D) Animal waste or animal byproducts, including products of animal waste digesters.

"(E) Algae.

"(F) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road, electric transmission line, utility tower, or water supply line.

"(G) Residues from or byproducts of milled logs.

"(H) Any of the following removed from forested land that is not Federal and is not high conservation priority land:

"(i) Trees, brush, slash, residues, interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established—

"(I) prior to January 1, 2009; or

"(II) on land that, as of January 1, 2009, was cultivated or fallow and non-forested.

"(ii) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation.

"(iii) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types.

"(iv) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees.

"(I) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are—

"(i) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or mature forest stands, components of the National Landscape

Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas; or Wild and Scenic Rivers corridors;

"(ii) harvested in environmentally sustainable quantities, as determined by the appropriate Federal land manager; and

"(iii) are harvested in accordance with Federal and State law, and applicable land management plans.

"(43) RETIRE.—The term 'retire', with respect to an allowance or offset credit established or issued under this title, means to disqualify such allowance or offset credit for any subsequent use under this title, regardless of whether the use is a sale, exchange, or submission of the allowance or offset credit to satisfy a compliance obligation.

"(44) REVERSAL.—The term 'reversal' means an intentional or unintentional loss of sequestered greenhouse gases to the atmosphere.

"(45) SEQUESTERED AND SEQUESTRATION.—The terms 'sequestered' and 'sequestration' mean the separation, isolation, or removal of greenhouse gases from the atmosphere, as determined by the Administrator. The terms include biological, geologic, and mineral sequestration, but do not include ocean fertilization techniques.

"(46) STATIONARY SOURCE.—The term 'stationary source' means any integrated operation comprising any plant, building, structure, or stationary equipment, including support buildings and equipment, that is located within one or more contiguous or adjacent properties, is under common control of the same person or persons, and emits or may emit a greenhouse gas.

"(47) STRATEGIC RESERVE ALLOWANCE.—The term 'strategic reserve allowance' means an emission allowance reserved for, transferred to, or deposited in the strategic reserve, or established, under section 726.

"(48) UNCAPPED EMISSIONS.—The term 'uncapped emissions' means emissions of greenhouse gases emitted after December 31, 2011, that are not capped emissions.

"(49) UNITED STATES GREENHOUSE GAS EMISSIONS.—The term 'United States greenhouse gas emissions' means the total quantity of annual greenhouse gas emissions from the United States, as calculated by the Administrator and reported to the United Nations Framework Convention on Climate Change Secretariat.

"(50) UTILITY UNIT.—The term 'utility unit' means a combustion device that, on January 1, 2009, or any date thereafter, is fossil fuel-fired and serves a generator that produces electricity for sale, unless such combustion device, during the 12-month period starting the later of January 1, 2009, or the commencement of commercial operation and each calendar year starting after such later date—

"(A) is part of an integrated cycle system that cogenerates steam and electricity during normal operation and that supplies one-third or less of its potential electric output capacity and 25 MW or less of electrical output for sale; or

"(B) combusts materials of which more than 95 percent is municipal solid waste on a heat input basis.

"(51) VINTAGE YEAR.—The term 'vintage year' means the calendar year for which an emission allowance is established under section 721(a) or which is assigned to an emission allowance under section 726(g)(3)(A), except that the vintage year for a strategic reserve allowance shall be the year in which such allowance is purchased at auction.".

Subtitle B—Disposition of Allowances

SEC. 321. DISPOSITION OF ALLOWANCES FOR GLOBAL WARMING POLLUTION REDUCTION PROGRAM.

Title VII of the Clean Air Act, as added by section 311 of this Act, is amended by adding at the end the following part:

"PART H—DISPOSITION OF ALLOWANCES

"SEC. 781. ALLOCATION OF ALLOWANCES FOR SUPPLEMENTAL REDUCTIONS.

"(a) IN GENERAL.—The Administrator shall allocate for each vintage year the following percentage of the emission allowances established under section 721(a), for distribution in accordance with part E:

"(1) For vintage years 2012 through 2025, 5 percent.

"(2) For vintage years 2026 through 2030, 3 percent.

"(3) For vintage years 2031 through 2050, 2 percent.

"(b) ADJUSTMENT.—The Administrator shall modify the percentages set forth in subsection (a) as necessary to ensure the achievement of the annual supplemental emission reduction objective for 2020, and the cumulative reduction objective through 2025, set forth in section 753(b)(1).

"(c) CARRYOVER.—If the Administrator has not distributed all of the allowances allocated pursuant to this section for a given vintage year by the end of that year, the Administrator shall—

"(1) auction the remaining emission allowances under section 791 not later than March 31 of the year following that vintage year; and

"(2) increase the allocation for the vintage year after the vintage year for which emission allowances were undistributed by the amount of undistributed emission allowances.

"SEC. 782. ALLOCATION OF EMISSION ALLOWANCES.

"(a) ELECTRICITY CONSUMERS.—The Administrator shall allocate emission allowances for the benefit of electricity consumers, to be distributed in accordance with section 783 in the following amounts:

"(1) For vintage years 2012 and 2013, 43.75 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage years 2014 and 2015, 38.89 percent of the emission allowances established for each year under section 721(a).

"(3) For vintage years 2016 through 2025, 35.00 percent of the emission allowances established for each year under section 721(a).

"(4) For vintage year 2026, 28 percent of the emission allowances established for each year under section 721(a).

"(5) For vintage year 2027, 21 percent of the emission allowances established for each year under section 721(a).

"(6) For vintage year 2028, 14 percent of the emission allowances established for each year under section 721(a).

"(7) For vintage year 2029, 7 percent of the emission allowances established for each year under section 721(a).

"(b) NATURAL GAS CONSUMERS.—The Administrator shall allocate emission allowances for the benefit of natural gas consumers to be distributed in accordance with section 784 in the following amounts:

"(1) For vintage years 2016 through 2025, 9 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage year 2026, 7.2 percent of the emission allowances established for each year under section 721(a).

"(3) For vintage year 2027, 5.4 percent of the emission allowances established for each year under section 721(a).

"(4) For vintage year 2028, 3.6 percent of the emission allowances established for each year under section 721(a).

"(5) For vintage year 2029, 1.8 percent of the emission allowances established for each year under section 721(a).

"(c) HOME HEATING OIL AND PROPANE CONSUMERS.—The Administrator shall allocate emission allowances for the benefit of home heating oil and propane consumers to be distributed in accordance with section 785 in the following amounts:

"(1) For vintage years 2012 and 2013, 1.875 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage years 2014 and 2015, 1.67 percent of the emission allowances established for each year under section 721(a).

"(3) For vintage years 2016 through 2025, 1.5 percent of the emission allowances established for each year under section 721(a).

"(4) For vintage year 2026, 1.2 percent of the emission allowances established for each year under section 721(a).

"(5) For vintage year 2027, 0.9 percent of the emission allowances established for each year under section 721(a).

"(6) For vintage year 2028, 0.6 percent of the emission allowances established for each year under section 721(a).

"(7) For vintage year 2029, 0.3 percent of the emission allowances established for each year under section 721(a).

"(d) LOW INCOME CONSUMERS.—For each vintage year starting in 2012, the Administrator shall auction pursuant to section 791 15 percent of the emission allowances established for each year under section 721(a), with the proceeds used for the benefit of low income consumers to fund the program set forth in subtitle C of title IV of American Clean Energy and Security Act of 2009.

"(e) TRADE-VULNERABLE INDUSTRIES.—The Administrator shall allocate emission allowances to energy-intensive, trade-exposed entities, to be distributed in accordance with section 765, in the following amounts:

"(1) For vintage years 2012 and 2013, up to 2.0 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage year 2014, up to 15 percent of the emission allowances established for that year under section 721(a).

"(3) For vintage year 2015, up to the product of the amount specified in paragraph (2), multiplied by the quantity of emission allowances established for 2015 under section 721(a) divided by the quantity of emission allowances established for 2014 under section 721(a).

"(4) For vintage year 2016, up to the product of the amount specified in paragraph (3), multiplied by the quantity of emission allowances established for 2015 under section 721(a) divided by the quantity of emission allowances established for 2014 under section 721(a).

"(5) For vintage years 2017 through 2025, up to the product of the amount specified in paragraph (4), multiplied by the quantity of emission allowances established for that year under section 721(a) divided by the quantity of emission allowances established for 2016 under section 721(a).

"(6) For vintage years 2026 through 2050, up to the product of the amount specified in paragraph (4)—

"(A) multiplied by the quantity of emission allowances established for the applicable year during 2026 through 2050 under section 721(a) divided by the quantity of emission allowances established for 2016 under section 721(a); and

"(B) multiplied by a factor, not exceeding 100 percent, that shall equal 90 percent for 2026 and decline 10 percent for each year thereafter until reaching zero,

except that, if the President sets one or more factors for a year under section 767(c)(3)(A), the highest factor set (not exceeding 100 percent) shall be used for that year instead of the factor specified in subparagraph (B).

"(f) DEPLOYMENT OF CARBON CAPTURE AND SEQUESTRATION TECHNOLOGY.—

"(1) ANNUAL ALLOCATION.—The Administrator shall allocate emission allowances for the deployment of carbon capture and sequestration technology to be distributed in accordance with section 786 in the following amounts:

"(A) For vintage years 2014 through 2017, 1.75 percent of the emission allowances established for each year under section 721(a).

"(B) For vintage years 2018 and 2019, 4.75 percent of the emission allowances established for each year under section 721(a).

"(C) For vintage years 2020 through 2050, 5 percent of the emission allowances established for each year under section 721(a).

"(2) CARRYOVER.—If the Administrator has not distributed all of the allowances allocated pursuant to this subsection for a given vintage year by the end of that year, the Administrator shall—

"(A) auction those emission allowances under section 791 not later than March 31 of the year following that vintage year; and

"(B) increase the allocation under this subsection for the vintage year after the vintage year for which emission allowances were undisbursed by the amount of undisbursed emission allowances, but only to the extent that allowances for that later year are to be auctioned.

"(g) INVESTMENT IN ENERGY EFFICIENCY AND RENEWABLE ENERGY.—The Administrator shall allocate emission allowances to invest in energy efficiency and renewable energy as follows:

"(1) To be distributed in accordance with section 132 of the American Clean Energy and Security Act of 2009 in the following amounts:

"(A) For vintage years 2012 through 2015, 9.5 percent of the emission allowances established for each year under section 721(a).

"(B) For vintage years 2016 through 2017, 6.5 percent of the emission allowances established for each year under section 721(a).

"(C) For vintage years 2018 through 2021, 5.5 percent of the emission allowances established for each year under section 721(a).

"(D) For vintage years 2022 through 2025, 1.0 percent of the emission allowances established for each year under section 721(a).

"(E) For vintage years 2026 through 2050, 4.5 percent of the emission allowances established for each year under section 721(a).

"(F) At the same time the vintage year 2022 through 2025 allowances are distributed, 3.55 percent of emission allowances established under section 721(a) for the vintage year four years greater shall also be distributed (which shall be in addition to the emission allowances in subparagraph (E)).

"(2) To be distributed in accordance with section 201 of the American Clean Energy and Security Act of 2009, for each vintage year from 2012 through 2050, 0.5 percent of emission allowances established under section 721(a).

"(h) CLEAN ENERGY INNOVATION CENTERS.—For each vintage year from 2012 through 2050, the Administrator shall allocate for Clean Energy Innovation Centers, 1.5 percent of emission allowances established under section 721(a), to be distributed in accordance with section 171 of the American Clean Energy and Security Act of 2009.

"(i) INVESTMENT IN CLEAN VEHICLE TECHNOLOGY.—The Administrator shall allocate emission allowances to invest in the development and deployment of clean vehicles, to be distributed in accordance with section 124 of the American Clean Energy and Security Act of 2009 in the following amounts:

"(1) For vintage years 2012 through 2017, 3 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage years 2018 through 2025, 1 percent of the emission allowances established for each year under section 721(a).

"(j) DOMESTIC FUEL PRODUCTION.—For vintage years 2014 through 2026, the Administrator shall allocate 2.0 percent of the emission allowances established under section 721(a) to domestic refiners, to be distributed in accordance with section 787.

"(k) INVESTMENT IN WORKERS.—The Administrator shall auction pursuant to section 791 emission allowances for workers in the following amounts and shall report to the Secretary of Labor the amount of proceeds from the sale of these allowances:

"(1) For vintage years 2012 through 2021, 0.5 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage years 2022 through 2050, 1.0 percent of the emission allowances established for each year under section 721(a).

"(l) DOMESTIC ADAPTATION.—The Administrator shall allocate emission allowances for domestic adaptation as follows:

"(1) To be distributed in accordance with section 453 of the American Clean Energy and Security Act of 2009 in the following amounts:

"(A) For vintage years 2012 through 2021, 0.9 percent of the emission allowances established for each year under section 721(a).

"(B) For vintage years 2022 through 2026, 1.9 percent of the emission allowances established for each year under section 721(a).

"(C) For vintage years 2027 through 2050, 3.9 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage year 2012 and thereafter, the Administrator shall auction, pursuant to section 791, 0.1 percent of the emission allowances established for each year under section 721(a), and shall deposit the proceeds in the Climate Change Health Protection and Promotion Fund established by section 467 of the American Clean Energy and Security Act of 2009.

"(m) WILDLIFE AND NATURAL RESOURCE ADAPTATION.—The Administrator shall allocate emission allowances for wildlife and natural resource adaptation as follows:

"(1) To be distributed to State agencies in accordance with section 480(c)(1) of the American Clean Energy and Security Act of 2009 in the following amounts:

"(A) For vintage years 2012 through 2021, 0.385 percent of the emission allowances established for each year under section 721(a).

"(B) For vintage years 2022 through 2026, 0.77 percent of the emission allowances established for each year under section 721(a).

"(C) For vintage years 2027 through 2050, 1.54 percent of the emission allowances established for each year under section 721(a).

"(2) To be auctioned pursuant to section 791, with the proceeds to be deposited in the Natural Resources Climate Change Adaptation Fund established pursuant to section 480(a), in the following amounts:

"(A) For vintage years 2012 through 2021, 0.615 percent of the emission allowances established for each year under section 721(a).

"(B) For vintage years 2022 through 2026, 1.23 percent of the emission allowances established for each year under section 721(a).

"(C) For vintage years 2027 through 2050, 2.46 percent of the emission allowances established for each year under section 721(a).

"(n) INTERNATIONAL ADAPTATION.—The Administrator shall allocate emission allowances for international adaptation to be distributed in accordance with part 2 of subtitle E of title IV of the American Clean Energy and Security Act of 2009 in the following amounts:

"(1) For vintage years 2012 through 2021, 1.0 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage years 2022 through 2026, 2.0 percent of the emission allowances established for each year under section 721(a).

"(3) For vintage years 2027 through 2050, 4.0 percent of the emission allowances established for each year under section 721(a).

"(o) INTERNATIONAL CLEAN TECHNOLOGY DEPLOYMENT.—The Administrator shall allocate emission allowances for international clean technology deployment for distribution in accordance with subtitle D of title IV of the American Clean Energy and Security Act of 2009 in the following amounts:

"(1) For vintage years 2012 through 2021, 1.0 percent of the emission allowances established for each year under section 721(a).

"(2) For vintage years 2022 through 2026, 2.0 percent of the emission allowances established for each year under section 721(a).

"(3) For vintage years 2027 through 2050, 4.0 percent of the emission allowances established for each year under section 721(a).

"(p) RELEASE OF FUTURE ALLOWANCES.—The Administrator shall make future year allowances available by auctioning allowances, pursuant to section 791, in the following amounts:

"(1) In each of calendar years 2014 through 2019, a string of 0.70 billion allowances with vintage years 12 to 17 years after the year of the auction, with an equal number of allowances from each vintage year in the string.

"(2) In each of calendar years 2020 through 2025, a string of 0.50 billion allowances with vintage years 12 to 17 years after the year of the auction, with an equal number of allowances from each vintage year in the string.

"(3) In each of calendar years 2026 through 2030, a string of 0.3 billion allowances with vintage years 12 to 17 years after the year of the auction, with an equal number of allowances from each vintage year in the string.

"(q) DEFICIT REDUCTION.—

"(1) For each of vintage years 2012 through 2025, any allowances not designated for distribution or auction pursuant to section 781, subsections (a) through (o) of this section, or section 790 shall be auctioned by the Administrator pursuant to section 791 and the proceeds shall be deposited into the Treasury.

"(2) Unless otherwise specified, any allowances allocated pursuant to subsections (a) through (o) and not distributed by March 31 of the calendar year following the allowance's vintage year, shall be auctioned by the Administrator and the proceeds shall be deposited into the Treasury.

"(3) For auctions conducted through calendar year 2020 pursuant to subsection (p), the auction proceeds shall be deposited into the Treasury.

"(r) CLIMATE CHANGE CONSUMER REFUND.—

"(1) For each of vintage years 2026 through 2050, the Administrator shall auction the following allowances established under section 721(a) and deposit the proceeds into the Climate Change Consumer Refund Account:

"(A) Any allowances not designated for distribution or auction pursuant to section 781, subsections (a) through (p) of this section, or section 790.

"(B) Unless otherwise specified, any allowances allocated pursuant to subsections (a) through (o) and not distributed by March 31 of the calendar year following the allowance's vintage year.

"(2) For auctions conducted pursuant to subsection (p) in calendar years 2021 and thereafter, the Administrator shall place the proceeds from the sales of the these allowances into the Climate Change Consumer Refund Account. Funds deposited into the Climate Change Consumer Refund Account shall be used as specified in section 789 and shall be available for expenditure, without further appropriation or fiscal year limitation.

"SEC. 783. ELECTRICITY CONSUMERS.

"(a) DEFINITIONS.—For purposes of this section:

"(1) ELECTRICITY LOCAL DISTRIBUTION COMPANY.—The term 'electricity local distribution company' means an electric utility—

"(A) that has a legal, regulatory, or contractual obligation to deliver electricity directly to retail consumers in the United States, regardless of whether that entity or another entity sells the electricity as a commodity to those retail consumers; and

"(B) the retail rates of which, except in the case of a registered electric cooperative, are regulated by a State regulatory authority, regulatory commission, municipality, public utility, or by an Indian tribe pursuant to tribal law.

"(2) LONG-TERM CONTRACT GENERATOR.—The term 'long-term contract generator' means a qualifying small power production facility or a qualifying cogeneration facility (within the meaning of section 3(17)(C) or 3(18)(B) of the Federal Power Act), or a new independent power production facility (within the meaning

of section 416(a)(2) of this Act, except that subparagraph (C) of such definition shall not apply for purposes of this paragraph), that is—

"(A) a covered entity;

"(B) as of the commencement of operation, a facility consisting of one or more utility units with total installed net output capacity (in MWe) of no more than 130 percent of the facility's total planned net output capacity (in MWe);

"(C) as of the date of enactment of this title, a facility with a power sales agreement executed before January 1, 2007, that governs the facility's electricity sales and provides for sales at a price (whether a fixed price or a price formula) for electricity that does not allow for recovery of the costs of compliance with the limitation on greenhouse gas emissions under this title; and

"(D) not a merchant coal generator.

"(3) MERCHANT COAL GENERATOR.—The term 'merchant coal generator' means an electric generation facility that—

"(A) is a covered entity;

"(B) derives at least 85 percent of its heat input from coal, petroleum coke, or any combination of these 2 fuels;

"(C) is not owned by a Federal, State, or regional agency or power authority; and

"(D) generates electricity for sale to others, provided that such sales are not subject to—

"(i) retail rate regulation by a State public utility commission; or

"(ii) self-regulation of rates by a local government, State agency, or electric cooperative.

"(4) STATE REGULATORY AUTHORITY.—The term 'State regulatory authority' has the meaning given that term in section 3(17) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602(17)).

"(b) ELECTRICITY LOCAL DISTRIBUTION COMPANIES.—

"(1) ALLOCATION.—Not later than June 30 of 2011 and each calendar year thereafter through 2028, the Administrator shall distribute to electricity local distribution companies for the benefit of retail ratepayers the quantity of emission allowances allocated for the electricity sector for the following vintage year pursuant to section 782(a), provided that the Administrator shall first subtract from such quantity and distribute or reserve for distribution the quantity of emission allowances for the relevant vintage year that are required for distribution under subsections (c) and (d) of this section.

"(2) DISTRIBUTION OF ALLOWANCES BASED ON EMISSIONS.—

"(A) IN GENERAL.—For each vintage year, 50 percent of the emission allowances available for distribution under paragraph (1) shall be distributed by the Administrator among individual electricity local distribution companies ratably based on the annual average carbon dioxide emissions attributable to generation of electricity delivered at retail by each such company during the base period determined under subparagraph (B).

"(B) BASE PERIOD.—

"(i) VINTAGE YEARS 2012 AND 2013.—For vintage years 2012 and 2013, an electricity local distribution company's base period shall be—

"(I) calendar years 2006 through 2008; or

"(II) any 3 consecutive calendar years between 1999 and 2008, inclusive, that such company selects, provided that the company timely informs the Administrator of such selection.

"(ii) VINTAGE YEARS 2014 AND THEREAFTER.—For vintage years 2014 and thereafter, the base period shall be—

"(I) the base period selected under clause (i); or

"(II) any 3 consecutive calendar years between 2009 through 2012, inclusive, or, for local distribution companies with new units that are not fully operational before 2012, solely calendar year 2012, provided that such company selects a period from among these options and timely informs the Administrator of such selection.

"(C) DETERMINATION OF EMISSIONS.—As part of the regulations promulgated pursuant to subsection (e), the Administrator, after consultation with the Energy Information Administration, shall determine the average amount of carbon dioxide emissions attributable to generation of electricity delivered at retail by each electricity local distribution company for each of the years 1999 through 2009 or the most recent calendar year for which appropriate data are available, taking into account entities' electricity generation, electricity purchases, and electricity sales. Not later than March 31,

2013, the Administrator, after consultation with the Energy Information Administration, shall update such determination to include emissions for any additional calendar years through 2012. Such determinations shall be as precise as practicable, taking into account the nature of data currently available and the nature of markets and regulation in effect in various regions of the country. The following requirements shall apply to such determinations:

"(i) The Administrator shall determine the amount of fossil fuel-based electricity delivered at retail by each electricity local distribution company, and shall use appropriate emission factors to calculate carbon dioxide emissions associated with the generation of such electricity.

"(ii) Where it is not practical to determine the precise fuel mix for the electricity delivered at retail by an individual electricity local distribution company, the Administrator may use the best available data, including average data on a regional basis with reference to Regional Transmission Organizations or regional entities (as that term is defined in section 215(a)(7) of the Federal Power Act (16 U.S.C. 824o(a)(7)), to estimate fuel mix and emissions. Different methodologies may be applied in different regions if appropriate to obtain the most accurate estimate.

"(3) DISTRIBUTION OF ALLOWANCES BASED ON DELIVERIES.—

"(A) INITIAL ALLOCATION FORMULA.—Except as provided in subparagraph (B), for each vintage year, the Administrator shall distribute 50 percent of the emission allowances allocated under paragraph (1) of this subsection among individual electricity local distribution companies ratably based on each electricity local distribution company's annual average retail electricity deliveries for 2006 through 2008, unless the owner or operator of the company selects 3 other consecutive years between 1999 and 2008, inclusive, and timely notifies the Administrator of its selection.

"(B) UPDATING.—Prior to distributing 2015 vintage emission allowances under this subparagraph and at 3-year intervals thereafter, the Administrator shall update the distribution formula under this subparagraph to reflect changes in each electricity local distribution company's service territory since the most recent formula was established. For each successive 3-year period, the Administrator shall distribute allowances ratably among individual electricity local distribution companies based on the product of—

"(i) each electricity local distribution company's average annual deliveries per customer during calendar years 2006 through 2008, or during the 3 alternative consecutive years selected by such company under subparagraph (A); and

"(ii) the number of customers of such electricity local distribution company in the most recent year in which the formula is updated under this clause.

"(4) USE OF ALLOWANCES.—

"(A) RATEPAYER BENEFIT.—Emission allowances distributed to an electricity local distribution company under this subsection shall be used exclusively for the benefit of retail ratepayers of such electricity local distribution company and may not be used to support electricity sales or deliveries to entities or persons other than such ratepayers.

"(B) RATEPAYER CLASSES.—In using emission allowances distributed under this section for the benefit of ratepayers, an electricity local distribution company shall ensure that ratepayer benefits are distributed—

"(i) among ratepayer classes ratably based on electricity deliveries to each class; and

"(ii) equitably among individual ratepayers within each ratepayer class, including entities that receive emission allowances pursuant to part F.

"(C) LIMITATION.—An electricity local distribution company shall not use the value of emission allowances distributed under this subsection to provide to any ratepayer a rebate that is based solely on the quantity of electricity delivered to such ratepayer. To the extent an electricity local distribution company uses the value of emission allowances distributed under this subsection to provide rebates, it shall, to the maximum extent practicable, provide such rebates with regard to the fixed portion of ratepayers' bills or as a fixed credit or rebate on electricity bills.

"(D) GUIDELINES.—As part of the regulations promulgated under subsection (e), the Administrator shall prescribe specific guidelines for the implementation of the requirements of this paragraph.

"(5) REGULATORY PROCEEDINGS.—

"(A) REQUIREMENT.—No electricity local distribution company shall be eligible to receive emission allowances under this subsection unless the State regulatory authority with authority over such company, or the entity with authority to regulate retail electricity rates of an electricity local distribution company not regulated by a State regulatory authority, has—

"(i) promulgated a regulation or completed a rate proceeding (or the equivalent, in the case of a ratemaking entity other than a State regulatory authority) that provides for the full implementation of the requirements of paragraph (4) of this subsection; and

"(ii) made available to the Administrator and the public a report describing, in adequate detail, the manner in which the requirements of paragraph (4) will be implemented.

"(B) UPDATING.—The Administrator shall require, as a condition of continued receipt of emission allowances under this subsection by an electricity local distribution company, that a new regulation be promulgated or rate proceeding be completed, and a new report be made available to the Administrator and the public, pursuant to subparagraph (A), not less frequently than every 5 years.

"(6) PLANS AND REPORTING.—

"(A) REGULATIONS.—As part of the regulations promulgated under subsection (e), the Administrator shall prescribe requirements governing plans and reports to be submitted in accordance with this paragraph.

"(B) PLANS.—Not later than April 30 of 2011 and every 5 years thereafter through 2026, each electricity local distribution company shall submit to the Administrator a plan, approved by the State regulatory authority or other entity charged with regulating the retail rates of such company, describing such company's plans for the disposition of the value of emission allowances to be received pursuant to this subsection, in accordance with the requirements of this subsection.

"(C) REPORTS.—Not later than June 30 of 2013 and each calendar year thereafter through 2031, each electricity local distribution company shall submit a report to the Administrator, and to the relevant State regulatory authority or other entity charged with regulating the retail electricity rates of such company, describing the disposition of the value of any emission allowances received by such company in the prior calendar year pursuant to this subsection, including—

"(i) a description of sales, transfer, exchange, or use by the company for compliance with obligations under this title, of any such emission allowances;

"(ii) the monetary value received by the company, whether in money or in some other form, from the sale, transfer, or exchange of emission allowances received by the company under this subsection;

"(iii) the manner in which the company's disposition of emission allowances received under this subsection complies with the requirements of this subsection, including each of the requirements of paragraph (4); and

"(iv) such other information as the Administrator may require pursuant to subparagraph (A).

"(D) PUBLICATION.—The Administrator shall make available to the public all plans and reports submitted under this subsection, including by publishing such plans and reports on the Internet.

"(7) AUDITS.—Each year, the Administrator shall audit a representative sample of electricity local distribution companies to ensure that emission allowances distributed under this subsection have been used exclusively for the benefit of retail ratepayers and that such companies are complying with the requirements of this subsection. In selecting companies for audit, the Administrator shall take into account any credible evidence of noncompliance with such requirements. The Administrator shall make available to the public a report describing the results of each such audit, including by publishing such report on the Internet.

"(8) ENFORCEMENT.—A violation of any requirement of this subsection shall be a violation of this Act. Each emission allowance the value of which is used in violation of the requirements of this subsection shall be a separate violation.

"(c) MERCHANT COAL GENERATORS.—

"(1) QUALIFYING EMISSIONS.—The qualifying emissions for a merchant coal generator for a given calendar year shall be the product of the number of megawatt hours of electricity generated by such generator in such calendar year and the average carbon dioxide emissions per megawatt hour generated by such generator during calendar years 2006 through 2008, provided that the number of megawatt hours in a given calendar year for purposes of such calculation

shall be reduced in proportion to the portion of such generator's carbon dioxide emissions that are either—

"(A) captured and sequestered in such calendar year; or

"(B) attributable to the combustion or gasification of renewable biomass, such that the generator is not required to hold emission allowances for such emissions.

"(2) PHASE-DOWN SCHEDULE.—The Administrator shall identify an annual phase-down factor, applicable to distributions to merchant coal generators for each of vintage years 2012 through 2029, that corresponds to the overall decline in the amount of emission allowances to be allocated to the electricity sector in such years pursuant to section 782(a). Such factor shall—

"(A) for vintage year 2012, be equal to 1.0;

"(B) for each of vintage years 2013 through 2029, correspond to the quotient of—

"(i) the quantity of emission allowances allocated to the electricity sector under section 782(a) for such vintage year; divided by

"(ii) the quantity of emission allowances allocated to the electricity sector under section 782(a) for vintage year 2012.

"(3) DISTRIBUTION OF EMISSION ALLOWANCES.—Not later than March 1 of 2013 and each calendar year through 2030, the Administrator shall distribute emission allowances of the preceding vintage year to the owner or operator of each merchant coal generator equal to the product of—

"(A) 0.5;

"(B) the qualifying emissions for such merchant coal generator for the preceding year, as determined under paragraph (1); and

"(C) the phase-down factor for the preceding calendar year, as identified under paragraph (2).

"(4) ADJUSTMENT.—

"(A) STUDY.—Not later than July 1, 2014, the Administrator, in consultation with the Federal Energy Regulatory Commission, shall complete a study to determine whether the allocation formula under paragraph (3) is resulting in, or is likely to result in, windfall profits to merchant coal generators or substantially disparate treatment of merchant coal generators operating in different markets or regions.

"(B) REGULATION.—If the Administrator, in consultation with the Federal Energy Regulatory Commission, makes an affirmative finding of windfall profits or disparate treatment under subparagraph (A), the Administrator shall, not later than 18 months after the completion of the study described in subparagraph (A), promulgate regulations providing for the adjustment of the allocation formula under paragraph (3) to mitigate, to the extent practicable, such windfall profits, if any, and such disparate treatment, if any.

"(5) LIMITATION ON ALLOWANCES.—Notwithstanding paragraph (3) or (4), for any vintage year the Administrator shall distribute under this subsection no more than 10 percent of the total quantity of emission allowances available for such vintage year for distribution to the electricity sector under section 782(a). If the quantity of emission allowances that would otherwise be distributed pursuant to paragraph (3) or (4) for any vintage year would exceed such limit, the Administrator shall distribute 10 percent of the total emission allowances available for distribution under section 782(a) for such vintage year ratably among merchant coal generators based on the applicable formula under paragraph (3) or (4).

"(d) GENERATORS WITH LONG-TERM POWER PURCHASE AGREEMENTS.—

"(1) RESERVED ALLOWANCES.—Notwithstanding subsections (b) and (c) of this section, the Administrator shall withhold from distribution to electricity local distribution companies a number of emission allowances equal to 105 percent of the emission allowances the Administrator anticipates will be distributed to long-term contract generators under this subsection. If not required to distribute all of these reserved allowances under this subsection, the Administrator shall distribute any remaining emission allowances to the electricity local distribution companies in accordance with subsection (b).

"(2) DISTRIBUTION.—Not later than March 1 of 2013 and each calendar year through 2030, the Administrator shall distribute to the owner or operator of each long-term contract generator the number of emission allowances of the preceding vintage year that are equal to the number of tons of carbon dioxide emitted as a result of a qualifying long-term power purchase agreement referred to in subsection (a)(2)(C).

"(3) DURATION.—A long-term contract generator shall cease to be eligible to receive allocations under this subsection upon the earliest of the following dates:

"(A) The date when the facility no longer qualifies as a qualifying small power production facility or a qualifying cogeneration facility (within the meaning of section 3(17)(C) or 3(18)(B) of the Federal Power Act), or a new independent power production facility (within the meaning of section 416(a)(2) of this Act, except that subparagraph (C) of such definition shall not apply for purposes of this clause).

"(B) The date when the facility no longer meets the total installed net output capacity criterion required to be met as of the commencement of operation in subsection (a)(2)(B).

"(C) The date when the power purchase agreement referred to in subsection (a)(2)(C)—

"(i) expires;

"(ii) is terminated; or

"(iii) is amended in any way that changes the location of the facility, the price (whether a fixed price or price formula) for electricity sold under such agreement, the quantity of electricity sold under the agreement, or the expiration or termination date of the agreement.

"(4) ELIGIBILITY.—To be eligible to receive allowance distributions under this subsection, the owner or operator of a long-term contract generator shall submit each of the following in writing to the Administrator within 180 days after the date of enactment of this title, and not later than September 30 of each vintage year for which such generator wishes to receive emission allowances:

"(A) A certificate of representation described in section 700(15).

"(B) An identification of each owner and each operator of the facility.

"(C) An identification of the units at the facility and the location of the facility.

"(D) A written certification by the designated representative that the facility meets all the requirements of the definition of a long-term contract generator.

"(E) The expiration date of the power purchase agreement referred to in subsection (a)(2)(C).

"(F) A copy of the power purchase agreement referred to in subsection (a)(2)(C).

"(5) NOTIFICATION.—Not later than 30 days after a facility loses, in accordance with paragraph (3), its eligibility for emission allowances distributed pursuant to this subsection, the designated representative of such facility shall notify the Administrator in writing when, and on what basis, the facility lost its eligibility to receive emission allowances.

"(e) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with the Federal Energy Regulatory Commission, shall promulgate regulations to implement the requirements of this section.

"SEC. 784. NATURAL GAS CONSUMERS.

"(a) DEFINITIONS.—For purposes of this section:

"(1) NATURAL GAS LOCAL DISTRIBUTION COMPANY.—The term 'natural gas local distribution company' means a natural gas local distribution company that is a covered entity.

"(2) COST-EFFECTIVE.—The term 'cost-effective', with respect to an energy efficiency program, means that the program meets the Total Resource Cost Test, which requires that the net present value of economic benefits over the life of the program, including avoided supply and delivery costs and deferred or avoided investments, is greater than the net present value of the economic costs over the life of the program, including program costs and incremental costs borne by the energy consumer.

"(b) ALLOCATION.—Not later than June 30 of 2015 and each calendar year thereafter through 2028, the Administrator shall distribute to natural gas local distribution companies for the benefit of retail ratepayers the quantity of emission allowances allocated for the following vintage year pursuant to section 782(b). Such allowances shall be distributed among local natural gas distribution companies based on the following formula:

"(1) INITIAL FORMULA.—Except as provided in paragraph (2), for each vintage year, the Administrator shall distribute emission allowances among natural gas local distribution companies ratably based on each such company's annual average retail natural gas deliveries for 2006 through 2008, unless the owner or operator of the company selects 3 other consecutive years between 1999 and 2008, inclusive, and timely notifies the Administrator of its selection.

"(2) UPDATING.—Prior to distributing 2019 vintage emission allowances and at 3-year intervals thereafter, the Administrator shall update the distribution formula under this subsection to reflect changes in each natural gas local distribution company's service territory since the most recent formula was established. For each successive 3-year period, the Administrator shall distribute allowances ratably among natural gas local distribution companies based on the product of—

"(A) each natural gas local distribution company's average annual natural gas deliveries per customer during calendar years 2006 through 2008, or during the 3 alternative consecutive years selected by such company under paragraph (1); and

"(B) the number of customers of such natural gas local distribution company in the most recent year in which the formula is updated under this paragraph.

"(c) USE OF ALLOWANCES.—

"(1) RATEPAYER BENEFIT.—Emission allowances distributed to a natural gas local distribution company under this section shall be used exclusively for the benefit of retail ratepayers of such natural gas local distribution company and may not be used to support natural gas sales or deliveries to entities or persons other than such ratepayers.

"(2) RATEPAYER CLASSES.—In using emission allowances distributed under this section for the benefit of ratepayers, a natural gas local distribution company shall ensure that ratepayer benefits are distributed—

"(A) among ratepayer classes ratably based on natural gas deliveries to each class; and

"(B) equitably among individual ratepayers within each ratepayer class.

"(3) LIMITATION.—A natural gas local distribution company shall not use the value of emission allowances distributed under this section to provide to any ratepayer a rebate that is based solely on the quantity of natural gas delivered to such ratepayer. To the extent a natural gas local distribution company uses the value of emission allowances distributed under this section to provide rebates, it shall, to the maximum extent practicable, provide such rebates with regard to the fixed portion of ratepayers' bills or as a fixed creditor rebate on natural gas bills.

"(4) ENERGY EFFICIENCY PROGRAMS.—The value of no less than one third of the emission allowances distributed to natural gas local distribution companies pursuant to this section in any calendar year shall be used for cost-effective energy efficiency programs for natural gas consumers. Such programs must be authorized and overseen by the State regulatory authority, or by the entity with regulatory authority over retail natural gas rates in the case of a natural gas local distribution company that is not regulated by a State regulatory authority.

"(5) GUIDELINES.—As part of the regulations promulgated under subsection (h), the Administrator shall prescribe specific guidelines for the implementation of the requirements of this subsection.

"(d) REGULATORY PROCEEDINGS.—

"(1) REQUIREMENT.—No natural gas local distribution company shall be eligible to receive emission allowances under this section unless the State regulatory authority with authority over such company, or the entity with authority to regulate retail rates of a natural gas local distribution company not regulated by a State regulatory authority, has—

"(A) promulgated a regulation or completed a rate proceeding (or the equivalent, in the case of a ratemaking entity other than a State regulatory authority) that provides for the full implementation of the requirements of subsection (c); and

"(B) made available to the Administrator and the public a report describing, in adequate detail, the manner in which the requirements of subsection (c) will be implemented.

"(2) UPDATING.—The Administrator shall require, as a condition of continued receipt of emission allowances under this section, that a new regulation be promulgated or rate proceeding be completed, and a new report be made available to the Administrator and the public, pursuant to paragraph (1), not less frequently than every 5 years.

"(e) PLANS AND REPORTING.—

"(1) REGULATIONS.—As part of the regulations promulgated under subsection (h), the Administrator shall prescribe requirements governing plans and reports to be submitted in accordance with this subsection.

"(2) PLANS.—Not later than April 30 of 2015 and every 5 years thereafter through 2025, each natural gas local distribution company shall submit to the Administrator a plan, approved by the State regulatory authority or other entity

charged with regulating the retail rates of such company, describing such company's plans for the disposition of the value of emission allowances to be received pursuant to this section, in accordance with the requirements of this section.

"(3) REPORTS.—Not later than June 30 of 2017 and each calendar year thereafter through 2031, each natural gas local distribution company shall submit a report to the Administrator, approved by the relevant State regulatory authority or other entity charged with regulating the retail natural gas rates of such company, describing the disposition of the value of any emission allowances received by such company in the prior calendar year pursuant to this subsection, including—

"(A) a description of sales, transfer, exchange, or use by the company for compliance with obligations under this title, of any such emission allowances;

"(B) the monetary value received by the company, whether in money or in some other form, from the sale, transfer, or exchange of emission allowances received by the company under this section;

"(C) the manner in which the company's disposition of emission allowances received under this subsection complies with the requirements of this section, including each of the requirements of subsection (c);

"(D) the cost-effectiveness of, and energy savings achieved by, energy efficiency programs supported through such emission allowances; and

"(E) such other information as the Administrator may require pursuant to paragraph (1).

"(4) PUBLICATION.—The Administrator shall make available to the public all plans and reports submitted by natural gas local distribution companies under this subsection, including by publishing such plans and reports on the Internet.

"(f) AUDITS.—Each year, the Administrator shall audit a representative sample of natural gas local distribution companies to ensure that emission allowances distributed under this section have been used exclusively for the benefit of retail ratepayers and that such companies are complying with the requirements of this section. In selecting companies for audit, the Administrator shall take into account any credible evidence of noncompliance with such requirements. The Administrator shall make available to the public a report describing the results of each such audit, including by publishing such report on the Internet.

"(g) ENFORCEMENT.—A violation of any requirement of this section shall be a violation of this Act. Each emission allowance the value of which is used in violation of the requirements of this section shall be a separate violation.

"(h) REGULATIONS.—Not later than January 1, 2014, the Administrator, in consultation with the Federal Energy Regulatory Commission, shall promulgate regulations to implement the requirements of this section.

"SEC. 785. HOME HEATING OIL AND PROPANE CONSUMERS.

"(a) DEFINITIONS.—For purposes of this section:

"(1) CARBON CONTENT.—The term 'carbon content' means the amount of carbon dioxide that would be emitted as a result of the combustion of a fuel.

"(2) COST-EFFECTIVE.—The term 'cost-effective' has the meaning given that term in section 784(a)(2).

"(b) ALLOCATION.—Not later than September 30 of each of calendar years 2012 through 2029, the Administrator shall distribute among the States, in accordance with this section, the quantity of emission allowances allocated pursuant to section 782(c).

"(c) DISTRIBUTION AMONG STATES.—The Administrator shall distribute emission allowances among the States under this section each year ratably based on the ratio of—

"(1) the carbon content of home heating oil and propane sold to consumers within each State in the preceding year for residential or commercial uses; to

"(2) the carbon content of home heating oil and propane sold to consumers within the United States in the preceding year for residential or commercial uses.

"(d) USE OF ALLOWANCES.—

"(1) IN GENERAL.—States shall use emission allowances distributed under this section exclusively for the benefit of consumers of home heating oil or propane for residential or commercial purposes. Such proceeds shall be used exclusively for—

"(A) cost-effective energy efficiency programs for consumers that use home heating oil or propane for residential or commercial purposes; or

"(B) rebates or other direct financial assistance programs for consumers of home heating oil or propane used for residential or commercial purposes.

"(2) ADMINISTRATION AND DELIVERY MECHANISMS.—In administering programs supported by this section, States shall—

"(A) use no less than 50 percent of the value of emission allowances received under this section for cost-effective energy efficiency programs to reduce consumers' overall fuel costs;

"(B) to the extent practicable, deliver consumer support under this section through existing energy efficiency and consumer energy assistance programs or delivery mechanisms, including, where appropriate, programs or mechanisms administered by parties other than the State; and

"(C) seek to coordinate the administration and delivery of energy efficiency and consumer energy assistance programs supported under this section, with one another and with existing programs for various fuel types, so as to deliver comprehensive, fuel-blind, coordinated programs to consumers.

"(e) REPORTING.—Each State receiving emission allowances under this section shall submit to the Administrator, within 12 months of each receipt of such allowances, a report, in accordance with such requirements as the Administrator may prescribe, that—

"(1) describes the State's use of emission allowances distributed under this section, including a description of the energy efficiency and consumer assistance programs supported with such allowances;

"(2) demonstrates the cost-effectiveness of, and the energy savings achieved by, energy efficiency programs supported under this section; and

"(3) includes a report prepared by an independent third party, in accordance with such regulations as the Administrator may promulgate, evaluating the performance of the energy efficiency and consumer assistance programs supported under this section.

"(f) ENFORCEMENT.—If the Administrator determines that a State is not in compliance with this section, the Administrator may withhold a portion of the emission allowances, the quantity of which is equal to up to twice the quantity of the allowances that the State failed to use in accordance with the requirements of this section, that such State would otherwise be eligible to receive under this section in later years. Allowances withheld pursuant to this subsection shall be distributed among the remaining States ratably in accordance with the formula in subsection (c).

"SEC. 787. ALLOCATIONS TO REFINERIES.

"(a) PURPOSE.—To provide emission allowance rebates to petroleum refiners in the United States in a manner that promotes energy efficiency and a reduction in greenhouse gas emissions at such facilities.

"(b) DEFINITIONS.—In this section:

"(1) EMISSIONS.—The term 'emissions' means the greenhouse gas emissions in the calendar year preceding the calendar year in which emission allowances are being distributed. The term includes direct emissions from fuel combustion, process emissions, and indirect emissions from the generation of electricity used to produce the output of the petroleum refinery or sector.

"(2) INTENSITY.—The term 'intensity' means tons of carbon dioxide equivalent emissions per unit of output in a given year.

"(3) INTENSITY FACTOR.—The term 'intensity factor' means the intensity of the petroleum refining sector divided by the intensity for an individual petroleum refinery.

"(4) OUTPUT.—The term 'output' means the average annual number of gallons of refined fuel produced in the three calendar years preceding the calendar year in which emission allowances are being distributed.

"(5) PETROLEUM REFINERY.—The term 'petroleum refinery' means a facility classified under 324110 of the North American Industrial Classification System of 2002.

"(6) PRODUCTION FACTOR.—The term 'production factor' means the output of an individual petroleum refinery divided by the output of the petroleum refining sector.

"(c) IN GENERAL.—For each vintage year between 2014 and 2026, the Administrator shall distribute allowances pursuant to this section to owners and operators of petroleum refineries in the United States.

"(d) DISTRIBUTION SCHEDULE.—The Administrator shall distribute emission allowances of each vintage year no later than October 31 of the preceding calendar year.

"(e) CALCULATION OF EMISSION ALLOWANCE REBATES.—

"(1) For each petroleum refinery, the Administrator shall calculate an individual allocation factor for each vintage year, based upon the product of the in-

tensity factor for such refinery multiplied by the production factor for such refinery.

"(2) The Administrator shall also calculate a total allocation factor for each vintage year, based upon the sum of all of the individual allocation factors.

"(3) The Administrator shall calculate the number of emission allowances to be provided to each petroleum refinery in each vintage year by dividing the individual allocation factor for such refinery by the total allocation factor, then multiplying the result by the number of emission allowances allocated to the program under this section for that vintage year.

"(f) DATA SOURCES.—

"(1) The Administrator shall use data from the greenhouse gas registry, established under section 713, where it is available.

"(2) The Administrator shall determine, by rule, the methodology by which to calculate indirect emissions for a refinery. The Administrator shall also determine, by rule, the methodology by which to take into account the value of allowances provided at no cost to local distribution companies that is passed through to a refinery. Each person selling electricity to the owner or operator of a petroleum refinery shall provide the owner or operator and the Administrator, on an annual basis, such data as the Administrator determines is necessary to implement this section.

"SEC. 788. [SECTION RESERVED].

"SEC. 789. CLIMATE CHANGE CONSUMER REFUNDS.

"(a) REFUND.—In each year after deposits are made to the Climate Change Consumer Refund Account, the Secretary of the Treasury shall provide tax refunds on a per capita basis to each household in the United States that shall collectively equal the amount deposited into the Climate Change Consumer Refund Account.

"(b) LIMITATIONS.—The Secretary of the Treasury shall establish procedures to ensure that individuals who are not—

"(1) citizens or nationals of the United States; or

"(2) immigrants lawfully residing in the United States,

are excluded for the purpose of calculating and distributing refunds under this section.

"SEC. 790. EXCHANGE FOR STATE-ISSUED ALLOWANCES.

"(a) IN GENERAL.—Not later than one year after the date of enactment of this title, the Administrator shall issue regulations allowing any person in the United States to exchange greenhouse gas emission allowances issued before December 31, 2011, by the State of California or for the Regional Greenhouse Gas Initiative, or the Western Climate Initiative (in this section referred to as 'State allowances') for emission allowances established by the Administrator under section 721(a).

"(b) REGULATIONS.—Regulations issued under subsection (a) shall—

"(1) provide that a person exchanging State allowances under this section receive emission allowances established under section 721(a) in the amount that is sufficient to compensate for the cost of obtaining and holding such State allowances;

"(2) establish a deadline by which persons must exchange the State allowances; and

"(3) provide that the Federal emission allowances disbursed pursuant to this section shall be deducted from the allowances to be auctioned pursuant to section 782(b).

"(c) COST OF OBTAINING STATE ALLOWANCE.—For purposes of this section, the cost of obtaining a State allowance shall be the average auction price, for emission allowances issued in the year in which the State allowance was issued, under the program under which the State allowance was issued.

"SEC. 791. AUCTION PROCEDURES.

"(a) IN GENERAL.—To the extent that auctions of emission allowances by the Administrator are authorized by this part, such auctions shall be carried out pursuant to this section and the regulations established hereunder.

"(b) INITIAL REGULATIONS.—Not later than 12 months after the date of enactment of this title, the Administrator, in consultation with other agencies, as appropriate, shall promulgate regulations governing the auction of allowances under this section. Such regulations shall include the following requirements:

"(1) FREQUENCY; FIRST AUCTION.—Auctions shall be held four times per year at regular intervals, with the first auction to be held no later than March 31, 2011.

"(2) AUCTION SCHEDULE; CURRENT AND FUTURE VINTAGES.—The Administrator shall, at each quarterly auction under this section, offer for sale both a portion of the allowances with the same vintage year as the year in which the auction

is being conducted and a portion of the allowances with vintage years from future years. The preceding sentence shall not apply to auctions held before 2012, during which period, by necessity, the Administrator shall auction only allowances with a vintage year that is later than the year in which the auction is held. Beginning with the first auction and at each quarterly auction held thereafter, the Administrator may offer for sale allowances with vintage years of up to four years after the year in which the auction is being conducted, except as provided in section 782(p).

"(3) AUCTION FORMAT.—Auctions shall follow a single-round, sealed-bid, uniform price format.

"(4) PARTICIPATION; FINANCIAL ASSURANCE.—Auctions shall be open to any person, except that the Administrator may establish financial assurance requirements to ensure that auction participants can and will perform on their bids.

"(5) DISCLOSURE OF BENEFICIAL OWNERSHIP.—Each bidder in the auction shall be required to disclose the person or entity sponsoring or benefitting from the bidder's participation in the auction if such person or entity is, in whole or in part, other than the bidder.

"(6) PURCHASE LIMITS.—No person may, directly or in concert with another participant, purchase more than 5 percent of the allowances offered for sale at any quarterly auction.

"(7) PUBLICATION OF INFORMATION.—After the auction, the Administrator shall, in a timely fashion, publish the identities of winning bidders, the quantity of allowances obtained by each winning bidder, and the auction clearing price.

"(8) OTHER REQUIREMENTS.—The Administrator may include in the regulations such other requirements or provisions as the Administrator, in consultation with other agencies, as appropriate, considers appropriate to promote effective, efficient, transparent, and fair administration of auctions under this section.

"(c) REVISION OF REGULATIONS.—The Administrator may, in consultation with other agencies, as appropriate, at any time, revise the initial regulations promulgated under subsection (b). Such revised regulations need not meet the requirements identified in subsection (b) if the Administrator determines that an alternative auction design would be more effective, taking into account factors including costs of administration, transparency, fairness, and risks of collusion or manipulation. In determining whether and how to revise the initial regulations under this subsection, the Administrator shall not consider maximization of revenues to the Federal Government.

"(d) RESERVE AUCTION PRICE.—The minimum reserve auction price shall be $10 (in constant 2009 dollars) for auctions occurring in 2012. The minimum reserve price for auctions occurring in years after 2012 shall be the minimum reserve auction price for the previous year increased by 5 percent plus the rate of inflation (as measured by the Consumer Price Index for all urban consumers).

"(e) DELEGATION OR CONTRACT.—Pursuant to regulations under this section, the Administrator may by delegation or contract provide for the conduct of auctions under the Administrator's supervision by other departments or agencies of the Federal Government or by nongovernmental agencies, groups, or organizations.

"SEC. 792. AUCTIONING ALLOWANCES FOR OTHER ENTITIES.

"(a) CONSIGNMENT.—Any entity holding emission allowances or compensatory allowances may request that the Administrator auction, pursuant to section 791, the allowances on consignment.

"(b) PRICING.—When the Administrator acts under this section as the agent of an entity in possession of emission allowances, the Administrator is not obligated to obtain the highest price possible for the emission allowances, and instead shall auction consignment allowances in the same manner and pursuant to the same rules as auctions of other allowances under section 791. The Administrator may permit the entity offering the allowance for sale to condition the sale of its allowances pursuant to this section on a minimum reserve price that is different than the reserve auction price set pursuant to section 791(d).

"(c) PROCEEDS.—For emission allowances and compensatory allowances auctioned pursuant to this section, notwithstanding section 3302 of title 31, United States Code, or any other provision of law, within 90 days of receipt, the United States shall transfer the proceeds from the auction to the entity which held the allowances auctioned. No funds transferred from a purchaser to a seller of emission allowances or compensatory allowances under this subsection shall be held by any officer or employee of the United States or treated for any purpose as public monies.

"(d) REGULATIONS.—The Administrator shall issue regulations within 24 months after the date of enactment of this title to implement this section.

"SEC. 793. ESTABLISHMENT OF FUNDS.

"There is established in the Treasury of the United States the following funds:

"(1) The Strategic Reserve Fund.

"(2) The Climate Change Consumer Refund Fund.

"SEC. 794. OVERSIGHT OF ALLOCATIONS.

"(a) IN GENERAL.—Not later than January 1, 2014, and every 2 years thereafter, the Comptroller General of the United States shall carry out a review of programs administered by the Federal Government that distribute emission allowances or funds from any Federal auction of allowances.

"(b) CONTENTS.—Each such report shall include a comprehensive evaluation of the administration and effectiveness of each program, including—

"(1) the efficiency, transparency, and soundness of the administration of each program;

"(2) the performance of activities receiving assistance under each program;

"(3) the cost-effectiveness of each program in achieving the stated purposes of the program; and

"(4) recommendations, if any, for regulatory or administrative changes to each program to improve its effectiveness.

"(c) FOCUS.—In evaluating program performance, each review under this section review shall address the effectiveness of such programs in—

"(1) creating and preserving jobs;

"(2) ensuring a manageable transition for working families and workers;

"(3) reducing the emissions, or enhancing sequestration, of greenhouse gases;

"(4) developing clean technologies; and

"(5) building resilience to the impacts of climate change.".

Subtitle C—Additional Greenhouse Gas Standards

SEC. 331. GREENHOUSE GAS STANDARDS.

The Clean Air Act (42 U.S.C. 7401 and following), as amended by subtitles A and B of this title, is further amended by adding the following new title after title VII:

"TITLE VIII—ADDITIONAL GREENHOUSE GAS STANDARDS

"SEC. 801. DEFINITIONS.

"For purposes of this title, terms that are defined in title VII, except for the term 'stationary source', shall have the meaning given those terms in title VII.

"PART A—STATIONARY SOURCE STANDARDS

"SEC. 811. STANDARDS OF PERFORMANCE.

"(a) UNCAPPED STATIONARY SOURCES.—

"(1) INVENTORY OF SOURCE CATEGORIES.—(A) Within 12 months after the date of enactment of this title, the Administrator shall publish under section 111(b)(1)(A) an inventory of categories of stationary sources that consist of those categories that contain sources that individually had uncapped greenhouse gas emissions greater than 10,000 tons of carbon dioxide equivalent and that, in the aggregate, were responsible for emitting at least 20 percent annually of the uncapped greenhouse gas emissions.

"(B) The Administrator shall include in the inventory under this paragraph each source category that is responsible for at least 10 percent of the uncapped methane emissions in 2005. Notwithstanding any other provision, the inventory required by this section shall not include sources of enteric fermentation. The list under this paragraph shall include industrial sources, the emissions from which, when added to the capped emissions from industrial sources, constitute at least 95 percent of the greenhouse gas emissions of the industrial sector.

"(C) For purposes of this subsection, emissions shall be calculated using tons of carbon dioxide equivalents. In promulgating the inventory required by this paragraph and the schedule required under by paragraph (2)(C), the Administrator shall use the most current emissions data available at the time of promulgation, except as provided in subparagraph (B).

"(D) Notwithstanding any other provisions, the Administrator may list under 111(b) any source category identified in the inventory required by this sub-

section without making a finding that the source category causes or contributes significantly to, air pollution with may be reasonably anticipated to endanger public health or welfare.

"(2) STANDARDS AND SCHEDULE.—(A) For each category identified as provided in paragraph (1), the Administrator shall promulgate standards of performance under section 111 for the uncapped emissions of greenhouse gases from stationary sources in that category and shall promulgate corresponding regulations under section 111(d).

"(B) The Administrator shall promulgate standards as required by this subsection for stationary sources in categories identified as provided in paragraph (1) as expeditiously as practicable, assuring that—

"(i) standards for identified source categories that, combined, emitted 80 percent or more of the greenhouse gas emissions of the identified source categories shall be promulgated not later than 3 years after the date of enactment of this title and shall include standards for natural gas extraction; and

"(ii) for all other identified source categories—

"(I) standards for not less than an additional 25 percent of the identified categories shall be promulgated not later than 5 years after the date of enactment of this title;

"(II) standards for not less than an additional 25 percent of the identified categories shall be promulgated not later than 7 years after the date of enactment of this title; and

"(III) standards for all the identified categories shall be promulgated not later than 10 years after the date of enactment of this title.

"(C) Not later than 24 months after the date of enactment of this title and after notice and opportunity for comment, the Administrator shall publish a schedule establishing a date for the promulgation of standards for each category of sources identified pursuant to paragraph (1). The date for each category shall be consistent with the requirements of subparagraph (B). The determination of priorities for the promulgation of standards pursuant to this paragraph is not a rulemaking and shall not be subject to judicial review, except that failure to promulgate any standard pursuant to the schedule established by this paragraph shall be subject to review under section 304(a)(2).

"(D) Notwithstanding section 307, no action of the Administrator listing a source category under paragraph (1) shall be a final agency action subject to judicial review, except that any such action may be reviewed under section 307 when the Administrator issues performance standards for such category.

"(b) CAPPED SOURCES.—No standard of performance shall be established under section 111 for capped greenhouse gas emissions from a capped source unless the Administrator determines that such standards are appropriate because of effects that do not include climate change effects. In promulgating a standard of performance under section 111 for the emission from capped sources of any air pollutant that is not a greenhouse gas, the Administrator shall treat the emission of any greenhouse gas by those entities as a nonair quality public health and environmental impact within the meaning of section 111(a)(1).

"(c) PERFORMANCE STANDARDS.—For purposes of setting a performance standard for source categories identified pursuant to subsection (a)—

"(1) The Administrator shall take into account the goal of reducing total United States greenhouse gas emissions as set forth in section 702.

"(2) The Administrator may promulgate a design, equipment, work practice, or operational standard, or any combination thereof, under section 111 in lieu of a standard of performance under that section without regard to any determination of feasibility that would otherwise be required under section 111(h).

"(3) Notwithstanding any other provision, in setting the level of each standard required by this section, the Administrator shall take into account projections of allowance prices, such that the marginal cost of compliance (expressed as dollars per ton of carbon dioxide equivalent reduced) imposed by the standard would not, in the judgement of the Administrator, be expected to exceed the Administrator's projected allowance prices over the time period spanning from the date of initial compliance to the date that the next revisions of the standard would come into effect pursuant to the schedule under section 111(b)(1)(B).

"(d) DEFINITIONS.—In this section, the terms 'uncapped greenhouse gas emissions' and 'uncapped methane emissions' mean those greenhouse gas or methane emissions, respectively, to which section 722 would not have applied if the requirements of this title had been in effect for the same year as the emissions data upon which the list is based.

"(e) STUDY OF THE EFFECTS OF PERFORMANCE STANDARDS.—

"(1) STUDY.—The Administrator shall conduct a study of the impacts of performance standards required under this section, which shall evaluate the effect of such standards on the—

"(A) costs of achieving compliance with the economy-wide reduction goals specified in section 702 and the reduction targets specified in section 703;

"(B) available supply of offset credits; and

"(C) ability to achieve the economy-wide reduction goals specified in section 702 and any other benefits of such standards.

"(2) REPORT.—The Administrator shall submit to the House Energy and Commerce Committee a report that describes the results of the study not later than 18 months after the publication of the standards required under subsection (a)(2)(B)(i).

"PART C—EXEMPTIONS FROM OTHER PROGRAMS

"SEC. 831. CRITERIA POLLUTANTS.

"As of the date of the enactment of the Safe Climate Act, no greenhouse gas may be added to the list under section 108(a) on the basis of its effect on global climate change.

"SEC. 832. INTERNATIONAL AIR POLLUTION.

"Section 115 shall not apply to an air pollutant with respect to that pollutant's contribution to global warming.

"SEC. 833. HAZARDOUS AIR POLLUTANTS.

"No greenhouse gas may be added to the list of hazardous air pollutants under section 112 unless such greenhouse gas meets the listing criteria of section 112(b) independent of its effects on global climate change.

"SEC. 834. NEW SOURCE REVIEW.

"The provisions of part C of title I shall not apply to a major emitting facility that is initially permitted or modified after January 1, 2009, on the basis of its emissions of any greenhouse gas.

"SEC. 835. TITLE V PERMITS.

"Notwithstanding any provision of title III or V, no stationary source shall be required to apply for, or operate pursuant to, a permit under title V, solely because the source emits any greenhouse gases that are regulated solely because of their effect on global climate change.".

SEC. 332. HFC REGULATION.

(a) IN GENERAL.—Title VI of the Clean Air Act (42 U.S.C. 7671 et seq.) (relating to stratospheric ozone protection) is amended by adding at the end the following:

"SEC. 619. HYDROFLUOROCARBONS (HFCS).

"(a) TREATMENT AS CLASS II, GROUP II SUBSTANCES.—Except as otherwise provided in this section, hydrofluorocarbons shall be treated as class II substances for purposes of applying the provisions of this title. The Administrator shall establish two groups of class II substances. Class II, group I substances shall include all hydrochlorofluorocarbons (HCFCs) listed pursuant to section 602(b). Class II, group II substances shall include each of the following:

"(1) Hydrofluorocarbon-23 (HFC–23).
"(2) Hydrofluorocarbon-32 (HFC–32).
"(3) Hydrofluorocarbon-41 (HFC–41).
"(4) Hydrofluorocarbon-125 (HFC–125).
"(5) Hydrofluorocarbon-134 (HFC–134).
"(6) Hydrofluorocarbon-134a (HFC–134a).
"(7) Hydrofluorocarbon-143 (HFC–143).
"(8) Hydrofluorocarbon-143a (HFC–143a).
"(9) Hydrofluorocarbon-152 (HFC–152).
"(10) Hydrofluorocarbon-152a (HFC–152a).
"(11) Hydrofluorocarbon-227ea (HFC–227ea).
"(12) Hydrofluorocarbon-236cb (HFC–236cb).
"(13) Hydrofluorocarbon-236ea (HFC–236ea).
"(14) Hydrofluorocarbon-236fa (HFC–236fa).
"(15) Hydrofluorocarbon-245ca (HFC–245ca).
"(16) Hydrofluorocarbon-245fa (HFC–245fa).
"(17) Hydrofluorocarbon-365mfc (HFC–365mfc).
"(18) Hydrofluorocarbon-43-10mee (HFC–43–10mee).
"(19) Hydrofluoroolefin-1234yf (HFO–1234yf).

"(20) Hydrofluoroolefin-1234ze (HFO–1234ze).

Not later than 6 months after the date of enactment of this title, the Administrator shall publish an initial list of class II, group II substances, which shall include the substances listed in this subsection. The Administrator may add to the list of class II, group II substances any other substance used as a substitute for a class I or II substance if the Administrator determines that 1 metric ton of the substance makes the same or greater contribution to global warming over 100 years as 1 metric ton of carbon dioxide. Within 24 months after the date of enactment of this section, the Administrator shall amend the regulations under this title (including the regulations referred to in sections 603, 608, 609, 610, 611, 612, and 613) to apply to class II, group II substances.

"(b) CONSUMPTION AND PRODUCTION OF CLASS II, GROUP II SUBSTANCES.—

"(1) IN GENERAL.—

"(A) CONSUMPTION PHASE DOWN.—In the case of class II, group II substances, in lieu of applying section 605 and the regulations thereunder, the Administrator shall promulgate regulations phasing down the consumption of class II, group II substances in the United States, and the importation of products containing any class II, group II substance, in accordance with this subsection within 18 months after the date of enactment of this section. Effective January 1, 2012, it shall be unlawful for any person to produce any class II, group II substance, import any class II, group II substance, or import any product containing any class II, group II substance without holding one consumption allowance or one destruction offset credit for each carbon dioxide equivalent ton of the class II, group II substance. Any person who exports a class II, group II substance for which a consumption allowance was retired may receive a refund of that allowance from the Administrator following the export.

"(B) PRODUCTION.—If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, that restricts the production of class II, group II substances, the Administrator shall promulgate regulations establishing a baseline for the production of class II, group II substances in the United States and phasing down the production of class II, group II substances in the United States, in accordance with such multilateral agreement and subject to the same exceptions and other provisions as are applicable to the phase down of consumption of class II, group II substances under this section (except that the Administrator shall not require a person who obtains production allowances from the Administrator to make payment for such allowances if the person is making payment for a corresponding quantity of consumption allowances of the same vintage year). Upon the effective date of such regulations, it shall be unlawful for any person to produce any class II, group II substance without holding one consumption allowance and one production allowance, or one destruction offset credit, for each carbon dioxide equivalent ton of the class II, group II substance.

"(C) INTEGRITY OF CAP.—To maintain the integrity of the class II, group II cap, the Administrator may, through rulemaking, limit the percentage of each person's compliance obligation that may be met through the use of destruction offset credits or banked allowances.

"(D) COUNTING OF VIOLATIONS.—Each emission allowance or destruction offset credit not held as required by this section shall be a separate violation of this section.

"(2) SCHEDULE.—Pursuant to the regulations promulgated pursuant to paragraph (1), the number of class II, group II consumption allowances established by the Administrator for each calendar year beginning in 2012 shall be the following percentage of the baseline, as established by the Administrator pursuant to paragraph (3):

"Calendar year	Percent of baseline
2012	90
2013	87.5
2014	85
2015	82.5
2016	80

"Calendar year	Percent of baseline
2017	77.5
2018	75
2019	71
2020	67
2021	63
2022	59
2023	54
2024	50
2025	46
2026	42
2027	38
2028	34
2029	30
2030	25
2031	21
2032	17
after 2032	15

"(3) BASELINE.—(A) Within 12 months after the date of enactment of this section, the Administrator shall promulgate regulations to establish the baseline for purposes of paragraph (2). The baseline shall be the sum, expressed in tons of carbon dioxide equivalents, of—

"(i) the annual average consumption of all class II substances in calendar years 2004, 2005, and 2006; plus

"(ii) the annual average quantity of all class II substances contained in imported products in calendar years 2004, 2005, and 2006.

"(B) Notwithstanding subparagraph (A), if the Administrator determines that the baseline is higher than 370 million metric tons of carbon dioxide equivalents, then the Administrator shall establish the baseline at 370 million metric tons of carbon dioxide equivalents.

"(C) Notwithstanding subparagraph (A), if the Administrator determines that the baseline is lower than 280 million metric tons of carbon dioxide equivalents, then the Administrator shall establish the baseline at 280 million metric tons of carbon dioxide equivalents.

"(4) DISTRIBUTION OF ALLOWANCES.—

"(A) IN GENERAL.—Pursuant to the regulations promulgated under paragraph (1), for each calendar year beginning in 2012, the Administrator shall sell consumption allowances in accordance with this paragraph.

"(B) ESTABLISHMENT OF POOLS.—The Administrator shall establish two allowance pools. Eighty percent of the consumption allowances available for a calendar year shall be placed in the producer-importer pool, and 20 percent of the consumption allowances available for a calendar year shall be placed in the secondary pool.

"(C) PRODUCER-IMPORTER POOL.—

"(i) AUCTION.—(I) For each calendar year, the Administrator shall offer for sale at auction the following percentage of the consumption allowances in the producer-importer pool:

"Calendar year	Percent available for auction
2012	10
2013	20
2014	30

"Calendar year	Percent available for auction
2015	40
2016	50
2017	60
2018	70
2019	80
2020 and thereafter	90

"(II) Any person who produced or imported any class II substance during calendar year 2004, 2005, or 2006 may participate in the auction. No other persons may participate in the auction unless permitted to do so pursuant to subclause (III).

"(III) Not later than three years after the date of the initial auction and from time to time thereafter, the Administrator shall determine through rulemaking whether any persons who did not produce or import a class II substance during calendar year 2004, 2005, or 2006 will be permitted to participate in future auctions. The Administrator shall base this determination on the duration, consistency, and scale of such person's purchases of consumption allowances in the secondary pool under subparagraph (D), as well as economic or technical hardship and other factors deemed relevant by the Administrator.

"(IV) The Administrator shall set a minimum bid per consumption allowance of the following:

"(aa) For vintage year 2012, $1.00.

"(bb) For vintage year 2013, $1.20.

"(cc) For vintage year 2014, $1.40.

"(dd) For vintage year 2015, $1.60.

"(ee) For vintage year 2016, $1.80.

"(ff) For vintage year 2017, $2.00.

"(gg) For vintage year 2018 and thereafter, $2.00 adjusted for inflation after vintage year 2017 based upon the producer price index as published by the Department of Commerce.

"(ii) NON-AUCTION SALE.—(I) For each calendar year, as soon as practicable after auction, the Administrator shall offer for sale the remaining consumption allowances in the producer-importer pool at the following prices:

"(aa) A fee of $1.00 per vintage year 2012 allowance.

"(bb) A fee of $1.20 per vintage year 2013 allowance.

"(cc) A fee of $1.40 per vintage year 2014 allowance.

"(dd) For each vintage year 2015 allowance, a fee equal to the average of $1.10 and the auction clearing price for vintage year 2014 allowances.

"(ee) For each vintage year 2016 allowance, a fee equal to the average of $1.30 and the auction clearing price for vintage year 2015 allowances.

"(ff) For each vintage year 2017 allowance, a fee equal to the average of $1.40 and the auction clearing price for vintage year 2016 allowances.

"(gg) For each allowance of vintage year 2018 and subsequent vintage years, a fee equal to the auction clearing price for that vintage year.

"(II) The Administrator shall offer to sell the remaining consumption allowances in the producer-importer pool to producers of class II, group II substances and importers of class II, group II substances in proportion to their relative allocation share.

"(III) Such allocation share for such sale shall be determined by the Administrator using such producer's or importer's annual average data on class II substances from calendar years 2004, 2005, and 2006, on a carbon dioxide equivalent basis, and—

"(aa) shall be based on a producer's production, plus importation, plus acquisitions and purchases from persons who produced class II substances in the United States during calendar years 2004, 2005, or 2006, less exportation, less transfers and sales to persons

who produced class II substances in the United States during calendar years 2004, 2005, or 2006; and

"(bb) for an importer of class II substances that did not produce in the United States any class II substance during calendar years 2004, 2005, and 2006, shall be based on the importer's importation less exportation.

For purposes of item (aa), the Administrator shall account for 100 percent of class II, group II substances and 60 percent of class II, group I substances. For purposes of item (bb), the Administrator shall account for 100 percent of class II, group II substances and 100 percent of class II, group I substances.

"(IV) Any consumption allowances made available for nonauction sale to a specific producer or importer of class II, group II substances but not purchased by the specific producer or importer shall be made available for sale to any producer or importer of class II substances during calendar years 2004, 2005, or 2006. If demand for such consumption allowances exceeds supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances that may include pro rata shares, historic production and importation, economic or technical hardship, or other factors deemed relevant by the Administrator. If the supply of such consumption allowances exceeds demand, the Administrator may offer such consumption allowances for sale in the secondary pool as set forth in subparagraph (D).

"(D) SECONDARY POOL.—(i) For each calendar year, as soon as practicable after the auction required in subparagraph (C), the Administrator shall offer for sale the consumption allowances in the secondary pool at the prices listed in subparagraph (C)(ii).

"(ii) The Administrator shall accept applications for purchase of secondary pool consumption allowances from—

"(I) importers of products containing class II, group II substances;

"(II) persons who purchased any class II, group II substance directly from a producer or importer of class II, group II substances for use in a product containing a class II, group II substance, a manufacturing process, or a reclamation process;

"(III) persons who did not produce or import a class II substance during calendar year 2004, 2005, or 2006, but who the Administrator determines have subsequently taken significant steps to produce or import a substantial quantity of any class II, group II substance; and

"(IV) persons who produced or imported any class II substance during calendar year 2004, 2005, or 2006.

"(iii) If the supply of consumption allowances in the secondary pool equals or exceeds the demand for consumption allowances in the secondary pool as presented in the applications for purchase, the Administrator shall sell the consumption allowances in the secondary pool to the applicants in the amounts requested in the applications for purchase. Any consumption allowances in the secondary pool not purchased in a calendar year may be rolled over and added to the quantity available in the secondary pool in the following year.

"(iv) If the demand for consumption allowances in the secondary pool as presented in the applications for purchase exceeds the supply of consumption allowances in the secondary pool, the Administrator shall sell the consumption allowances as follows:

"(I) The Administrator shall first sell the consumption allowances in the secondary pool to any importers of products containing class II, group II substances in the amounts requested in their applications for purchase. If the demand for such consumption allowances exceeds supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances among importers of products containing class II, group II substances that may include pro rata shares, historic importation, economic or technical hardship, or other factors deemed relevant by the Administrator.

"(II) The Administrator shall next sell any remaining consumption allowances to persons identified in subclauses (II) and (III) of clause (ii) in the amounts requested in their applications for purchase. If the demand for such consumption allowances exceeds remaining supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances among subclauses (II) and (III) applicants that may include pro rata shares, his-

toric use, economic or technical hardship, or other factors deemed relevant by the Administrator.

"(III) The Administrator shall then sell any remaining consumption allowances to persons who produced or imported any class II substance during calendar year 2004, 2005, or 2006 in the amounts requested in their applications for purchase. If demand for such consumption allowances exceeds remaining supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances that may include pro rata shares, historic production and importation, economic or technical hardship, or other factors deemed relevant by the Administrator.

"(IV) Each person who purchases consumption allowances in a nonauction sale under this subparagraph shall be required to disclose the person or entity sponsoring or benefitting from the purchases if such person or entity is, in whole or in part, other than the purchaser or the purchaser's employer.

"(E) DISCRETION TO WITHHOLD ALLOWANCES.—Nothing in this paragraph prevents the Administrator from exercising discretion to withhold and retire consumption allowances that would otherwise be available for auction or nonauction sale. Not later than 18 months after the date of enactment of this section, the Administrator shall promulgate regulations establishing criteria for withholding and retiring consumption allowances.

"(5) BANKING.—A consumption allowance or destruction offset credit may be used to meet the compliance obligation requirements of paragraph (1) in—

"(A) the vintage year for the allowance or destruction offset credit; or

"(B) any calendar year subsequent to the vintage year for the allowance or destruction offset credit.

"(6) AUCTIONS.—

"(A) INITIAL REGULATIONS.—Not later than 18 months after the date of enactment of this section, the Administrator shall promulgate regulations governing the auction of allowances under this section. Such regulations shall include the following requirements:

"(i) FREQUENCY; FIRST AUCTION.—Auctions shall be held one time per year at regular intervals, with the first auction to be held no later than October 31, 2011.

"(ii) AUCTION FORMAT.—Auctions shall follow a single-round, sealed-bid, uniform price format.

"(iii) FINANCIAL ASSURANCE.—The Administrator may establish financial assurance requirements to ensure that auction participants can and will perform on their bids.

"(iv) DISCLOSURE OF BENEFICIAL OWNERSHIP.—Each bidder in the auction shall be required to disclose the person or entity sponsoring or benefitting from the bidder's participation in the auction if such person or entity is, in whole or in part, other than the bidder or the bidder's employer.

"(v) PUBLICATION OF INFORMATION.—After the auction, the Administrator shall, in a timely fashion, publish the number of bidders, number of winning bidders, the quantity of allowances sold, and the auction clearing price.

"(vi) BIDDING LIMITS IN 2012.—In the vintage year 2012 auction, no auction participant may, directly or in concert with another participant, bid for or purchase more allowances offered for sale at the auction than the greater of—

"(I) the number of allowances which, when added to the number of allowances available for purchase by the participant in the producer-importer pool non-auction sale, would equal the participant's annual average consumption of class II, group II substances in calendar years 2004, 2005, and 2006; or

"(II) the number of allowances equal to the product of—

"(aa) 1.20 multiplied by the participant's allocation share of the producer-importer pool non-auction sale as determined under paragraph (4)(C)(ii); and

"(bb) the number of vintage year 2012 allowances offered at auction.

"(vii) BIDDING LIMITS IN 2013.—In the vintage year 2013 auction, no auction participant may, directly or in concert with another participant, bid for or purchase more allowances offered for sale at the auction than the product of—

"(I) 1.15 multiplied by the ratio of the total number of vintage year 2012 allowances purchased by the participant from the auction and from the producer-importer pool non-auction sale to the total number of vintage year 2012 allowances in the producer-importer pool; and

"(II) the number of vintage year 2013 allowances offered at auction.

"(viii) BIDDING LIMITS IN SUBSEQUENT YEARS.—In the auctions for vintage year 2014 and subsequent vintage years, no auction participant may, directly or in concert with another participant, bid for or purchase more allowances offered for sale at the auction than the product of—

"(I) 1.15 multiplied by the ratio of the highest number of allowances held by the participant in any of the three prior vintage years to meet its compliance obligation under paragraph (1) to the total number of allowances in the producer-importer pool for such vintage year; and

"(II) the number of allowances offered at auction for that vintage year.

"(ix) OTHER REQUIREMENTS.—The Administrator may include in the regulations such other requirements or provisions as the Administrator considers necessary to promote effective, efficient, transparent, and fair administration of auctions under this section.

"(B) REVISION OF REGULATIONS.—The Administrator may, at any time, revise the initial regulations promulgated under subparagraph (A) based on the Administrator's experience in administering allowance auctions. Such revised regulations need not meet the requirements identified in subparagraph (A) if the Administrator determines that an alternative auction design would be more effective, taking into account factors including costs of administration, transparency, fairness, and risks of collusion or manipulation. In determining whether and how to revise the initial regulations under this paragraph, the Administrator shall not consider maximization of revenues to the Federal Government.

"(C) DELEGATION OR CONTRACT.—Pursuant to regulations under this section, the Administrator may, by delegation or contract, provide for the conduct of auctions under the Administrator's supervision by other departments or agencies of the Federal Government or by nongovernmental agencies, groups, or organizations.

"(7) PAYMENTS FOR ALLOWANCES.—

"(A) INITIAL REGULATIONS.—Not later than 18 months after the date of enactment of this section, the Administrator shall promulgate regulations governing the payment for allowances purchased in auction and non-auction sales under this section. Such regulations shall include the requirement that, in the event that full payment for purchased allowances is not made on the date of purchase, equal payments shall be made one time per calendar quarter with all payments for allowances of a vintage year made by the end of that vintage year.

"(B) REVISION OF REGULATIONS.— The Administrator may, at any time, revise the initial regulations promulgated under subparagraph (A) based on the Administrator's experience in administering collection of payments. Such revised regulations need not meet the requirements identified in subparagraph (A) if the Administrator determines that an alternative payment structure or frequency would be more effective, taking into account factors including cost of administration, transparency, and fairness. In determining whether and how to revise the initial regulations under this paragraph, the Administrator shall not consider maximization of revenues to the Federal Government.

"(C) PENALTIES FOR NON-PAYMENT.—Failure to pay for purchased allowances in accordance with the regulations promulgated pursuant to this paragraph shall be a violation of the requirements of subsection (b). Section 113(c)(3) shall apply in the case of any person who knowingly fails to pay for purchased allowances in accordance with the regulations promulgated pursuant to this paragraph.

"(8) IMPORTED PRODUCTS.—If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, which restricts the production and consumption of class II, group II substances—

"(A) as of the date on which such agreement or amendment enters into force, it shall no longer be unlawful for any person to import from a party to such agreement or amendment any product containing any class II,

group II substance whose production and consumption are regulated by such agreement or amendment without holding one consumption allowance or one destruction offset credit for each carbon dioxide equivalent ton of the class II, group II substance;

"(B) the Administrator shall promulgate regulations within 12 months of the date the United States becomes a party or otherwise adheres to such agreement or amendment, or the date on which such agreement or amendment enters into force, whichever is later, to establish a new baseline for purposes of paragraph (2), which new baseline shall be the original baseline less the carbon dioxide equivalent of the annual average quantity of any class II substances regulated by such agreement or amendment contained in products imported from parties to such agreement or amendment in calendar years 2004, 2005, and 2006;

"(C) as of the date on which such agreement or amendment enters into force, no person importing any product containing any class II, group II substance may, directly or in concert with another person, purchase any consumption allowances for sale by the Administrator for the importation of products from a party to such agreement or amendment that contain any class II, group II substance restricted by such agreement or amendment; and

"(D) the Administrator may adjust the two allowance pools established in paragraph (4) such that up to 90 percent of the consumption allowances available for a calendar year are placed in the producer-importer pool with the remaining consumption allowances placed in the secondary pool.

"(9) OFFSETS.—

"(A) CHLOROFLUOROCARBON DESTRUCTION.—Within 18 months after the date of enactment of this section, the Administrator shall promulgate regulations to provide for the issuance of offset credits for the destruction, in the calendar year 2012 or later, of chlorofluorocarbons in the United States. The Administrator shall establish and distribute to the destroying entity a quantity of destruction offset credits equal to 0.8 times the number of tons of carbon dioxide equivalents of reduction achieved through the destruction. No destruction offset credits shall be established for the destruction of a class II, group II substance.

"(B) DEFINITION.—For purposes of this paragraph, the term 'destruction' means the conversion of a substance by thermal, chemical, or other means to another substance with little or no carbon dioxide equivalent value and no ozone depletion potential.

"(C) REGULATIONS.—The regulations promulgated under this paragraph shall include standards and protocols for project eligibility, certification of destroyers, monitoring, tracking, destruction efficiency, quantification of project and baseline emissions and carbon dioxide equivalent value, and verification. The Administrator shall ensure that destruction offset credits represent real and verifiable destruction of chlorofluorocarbons or other class I or class II, group I, substances authorized under subparagraph (D).

"(D) OTHER SUBSTANCES.—The Administrator may promulgate regulations to add to the list of class I and class II, group I, substances that may be destroyed for destruction offset credits, taking into account a candidate substance's carbon dioxide equivalent value, ozone depletion potential, prevalence in banks in the United States, and emission rates, as well as the need for additional cost containment under the class II, group II cap and the integrity of the class II, group II cap. The Administrator shall not add a class I or class II, group I substance to the list if the consumption of the substance has not been completely phased-out internationally (except for essential use exemptions or other similar exemptions) pursuant to the Montreal Protocol.

"(E) EXTENSION OF OFFSETS.—(i) At any time after the Administrator promulgates regulations pursuant to subparagraph (A), the Administrator may add the types of destruction projects authorized to receive destruction offset credits under this paragraph to the list of types of projects eligible for offset credits under section 733. Nothing in this paragraph shall affect the issuance of offset credits under section 740.

"(ii) The Administrator shall not make the addition under clause (i) unless the Administrator finds that insufficient destruction is occurring or is projected to occur under this paragraph and that the addition would increase destruction.

"(iii) In no event shall more than one destruction offset credit be issued under title VII and this section for the destruction of the same quantity of a substance.

"(10) LEGAL STATUS OF ALLOWANCES AND CREDITS.—None of the following constitutes a property right:

"(A) A production or consumption allowance.

"(B) A destruction offset credit.

"(c) DEADLINES FOR COMPLIANCE.—Notwithstanding the deadlines specified for class II substances in sections 608, 609, 610, 612, and 613 that occur prior to January 1, 2009, the deadline for promulgating regulations under those sections for class II, group II substances shall be January 1, 2012.

"(d) EXCEPTIONS FOR ESSENTIAL USES.—Notwithstanding any phase down of production and consumption required by this section, to the extent consistent with any applicable multilateral agreement to which the United States is a party or otherwise adheres, the Administrator may provide the following exceptions for essential uses:

"(1) MEDICAL DEVICES.—The Administrator, after notice and opportunity for public comment, and in consultation with the Commissioner of the Food and Drug Administration, may provide an exception for the production and consumption of class II, group II substances solely for use in medical devices.

"(2) AVIATION SAFETY.—The Administrator, after notice and opportunity for public comment, may authorize the production and consumption of limited quantities of class II, group II substances solely for the purposes of aviation safety if the Administrator of the Federal Aviation Administration, in consultation with the Administrator, determines that no safe and effective substitute has been developed and that such authorization is necessary for aviation safety purposes.

"(e) DEVELOPING COUNTRIES.—Notwithstanding any phase down of production required by this section, the Administrator, after notice and opportunity for public comment, may authorize the production of limited quantities of class II, group II substances in excess of the amounts otherwise allowable under this section solely for export to, and use in, developing countries. Any production authorized under this subsection shall be solely for purposes of satisfying the basic domestic needs of such countries as provided in applicable international agreements, if any, to which the United States is a party or otherwise adheres.

"(f) NATIONAL SECURITY; FIRE SUPPRESSION, ETC.—The provisions of subsection (f) and paragraphs (1) and (2) of subsection (g) of section 604 shall apply to any consumption and production phase down of class II, group II substances in the same manner and to the same extent, consistent with any applicable international agreement to which the United States is a party or otherwise adheres, as such provisions apply to the substances specified in such subsection.

"(g) ACCELERATED SCHEDULE.—In lieu of section 606, the provisions of paragraphs (1), (2), and (3) of this subsection shall apply in the case of class II, group II substances.

"(1) IN GENERAL.—The Administrator shall promulgate initial regulations not later than 18 months after the date of enactment of this section, and revised regulations any time thereafter, which establish a schedule for phasing down the consumption (and, if the condition in subsection (b)(1)(B) is met, the production) of class II, group II substances that is more stringent than the schedule set forth in this section if, based on the availability of substitutes, the Administrator determines that such more stringent schedule is practicable, taking into account technological achievability, safety, and other factors the Administrator deems relevant, or if the Montreal Protocol, or any applicable international agreement to which the United States is a party or otherwise adheres, is modified or established to include a schedule or other requirements to control or reduce production, consumption, or use of any class II, group II substance more rapidly than the applicable schedule under this section.

"(2) PETITION.—Any person may submit a petition to promulgate regulations under this subsection in the same manner and subject to the same procedures as are provided in section 606(b).

"(3) INCONSISTENCY.—If the Administrator determines that the provisions of this section regarding banking, allowance rollover, or destruction offset credits create a significant potential for inconsistency with the requirements of any applicable international agreement to which the United States is a party or otherwise adheres, the Administrator may promulgate regulations restricting the availability of banking, allowance rollover, or destruction offset credits to the extent necessary to avoid such inconsistency.

"(h) EXCHANGE.—Section 607 shall not apply in the case of class II, group II substances. Production and consumption allowances for class II, group II substances may be freely exchanged or sold but may not be converted into allowances for class II, group I substances.

"(i) LABELING.—(1) In applying section 611 to products containing or manufactured with class II, group II substances, in lieu of the words 'destroying ozone in

the upper atmosphere' on labels required under section 611 there shall be substituted the words 'contributing to global warming'.

"(2) The Administrator may, through rulemaking, exempt from the requirements of section 611 products containing or manufactured with class II, group II substances determined to have little or no carbon dioxide equivalent value compared to other substances used in similar products.

"(j) NONESSENTIAL PRODUCTS.—For the purposes of section 610, class II, group II substances shall be regulated under section 610(b), except that in applying section 610(b) the word 'hydrofluorocarbon' shall be substituted for the word 'chlorofluorocarbon' and the term 'class II, group II' shall be substituted for the term 'class I'. Class II, group II substances shall not be subject to the provisions of section 610(d).

"(k) INTERNATIONAL TRANSFERS.—In the case of class II, group II substances, in lieu of sections 616(a) and 616(b), this subsection shall apply. To the extent consistent with any applicable international agreement to which the United States is a party or otherwise adheres, including any amendment to the Montreal Protocol, the United States may engage in transfers with other parties to such agreement or amendment under the following conditions:

"(1) The United States may transfer production allowances to another party to such agreement or amendment if, at the time of the transfer, the Administrator establishes revised production limits for the United States accounting for the transfer in accordance with regulations promulgated pursuant to this subsection.

"(2) The United States may acquire production allowances from another party to such agreement or amendment if, at the time of the transfer, the Administrator finds that the other party has revised its domestic production limits in the same manner as provided with respect to transfers by the United States in the regulations promulgated pursuant to this subsection.

"(l) RELATIONSHIP TO OTHER LAWS.—

"(1) STATE LAWS.—For purposes of section 116, the requirements of this section for class II, group II substances shall be treated as requirements for the control and abatement of air pollution.

"(2) MULTILATERAL AGREEMENTS.—Section 614 shall apply to the provisions of this section concerning class II, group II substances, except that for the words 'Montreal Protocol' there shall be substituted the words 'Montreal Protocol, or any applicable multilateral agreement to which the United States is a party or otherwise adheres that restricts the production or consumption of class II, group II substances,' and for the words 'Article 4 of the Montreal Protocol' there shall be substituted 'any provision of such multilateral agreement regarding trade with non-parties'.

"(3) FEDERAL FACILITIES.—For purposes of section 118, the requirements of this section for class II, group II substances and corresponding State, interstate, and local requirements, administrative authority, and process and sanctions shall be treated as requirements for the control and abatement of air pollution within the meaning of section 118.

"(m) CARBON DIOXIDE EQUIVALENT VALUE.—(1) In lieu of section 602(e), the provisions of this subsection shall apply in the case of class II, group II substances. Simultaneously with establishing the list of class II, group II substances, and simultaneously with any addition to that list, the Administrator shall publish the carbon dioxide equivalent value of each listed class II, group II substance, based on a determination of the number of metric tons of carbon dioxide that makes the same contribution to global warming over 100 years as 1 metric ton of each class II, group II substance.

"(2) Not later than February 1, 2017, and not less than every 5 years thereafter, the Administrator shall—

"(A) review, and if appropriate, revise the carbon dioxide equivalent values established for class II, group II substances based on a determination of the number of metric tons of carbon dioxide that makes the same contributions to global warming over 100 years as 1 metric ton of each class II, group II substance; and

"(B) publish in the Federal Register the results of that review and any revisions.

"(3) A revised determination published in the Federal Register under paragraph (2)(B) shall take effect for production of class II, group II substances, consumption of class II, group II substances, and importation of products containing class II, group II substances starting on January 1 of the first calendar year starting at least 9 months after the date on which the revised determination was published.

"(4) The Administrator may decrease the frequency of review and revision under paragraph (2) if the Administrator determines that such decrease is appropriate in

order to synchronize such review and revisions with any similar review process carried out pursuant to the United Nations Framework Convention on Climate Change, an agreement negotiated under that convention, The Vienna Convention for the Protection of the Ozone Layer, or an agreement negotiated under that convention, except that in no event shall the Administrator carry out such review and revision any less frequently than every 10 years.

"(n) REPORTING REQUIREMENTS.—In lieu of subsections (b) and (c) of section 603, paragraphs (1) and (2) of this subsection shall apply in the case of class II, group II substances:

"(1) IN GENERAL.—On a quarterly basis, or such other basis (not less than annually) as determined by the Administrator, each person who produced, imported, or exported a class II, group II substance, or who imported a product containing a class II, group II substance, shall file a report with the Administrator setting forth the carbon dioxide equivalent amount of the substance that such person produced, imported, or exported, as well as the amount that was contained in products imported by that person, during the preceding reporting period. Each such report shall be signed and attested by a responsible officer. If all other reporting is complete, no such report shall be required from a person after April 1 of the calendar year after such person permanently ceases production, importation, and exportation of the substance, as well as importation of products containing the substance, and so notifies the Administrator in writing. If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, that restricts the production and consumption of class II, group II substances, then, if all other reporting is complete, no such report shall be required from a person with respect to importation from parties to such agreement or amendment of products containing any class II, group II substance restricted by such agreement or amendment, after April 1 of the calendar year following the year during which such agreement or amendment enters into force.

"(2) BASELINE REPORTS FOR CLASS II, GROUP II SUBSTANCES.—

"(A) IN GENERAL.—Unless such information has been previously reported to the Administrator, on the date on which the first report under paragraph (1) of this subsection is required to be filed, each person who produced, imported, or exported a class II, group II substance, or who imported a product containing a class II substance, (other than a substance added to the list of class II, group II substances after the publication of the initial list of such substances under this section), shall file a report with the Administrator setting forth the amount of such substance that such person produced, imported, exported, or that was contained in products imported by that person, during each of calendar years 2004, 2005, and 2006.

"(B) PRODUCERS.—In reporting under subparagraph (A), each person who produced in the United States a class II substance during calendar years 2004, 2005, or 2006 shall—

"(i) report all acquisitions or purchases of class II substances during each of calendar years 2004, 2005, and 2006 from all other persons who produced in the United States a class II substance during calendar years 2004, 2005, or 2006, and supply evidence of such acquisitions and purchases as deemed necessary by the Administrator; and

"(ii) report all transfers or sales of class II substances during each of calendar years 2004, 2005, and 2006 to all other persons who produced in the United States a class II substance during calendar years 2004, 2005, or 2006, and supply evidence of such transfers and sales as deemed necessary by the Administrator.

"(C) ADDED SUBSTANCES.—In the case of a substance added to the list of class II, group II substances after publication of the initial list of such substances under this section, each person who produced, imported, exported, or imported products containing such substance in calendar year 2004, 2005, or 2006 shall file a report with the Administrator within 180 days after the date on which such substance is added to the list, setting forth the amount of the substance that such person produced, imported, and exported, as well as the amount that was contained in products imported by that person, in calendar years 2004, 2005, and 2006.

"(o) STRATOSPHERIC OZONE AND CLIMATE PROTECTION FUND.—

"(1) IN GENERAL.—There is established in the Treasury of the United States a Stratospheric Ozone and Climate Protection Fund.

"(2) DEPOSITS.—The Administrator shall deposit all proceeds from the auction and non-auction sale of allowances under this section into the Stratospheric Ozone and Climate Protection Fund.

"(3) USE.—Amounts deposited into the Stratospheric Ozone and Climate Protection Fund shall be available, subject to appropriations, exclusively for the following purposes:

"(A) RECOVERY, RECYCLING, AND RECLAMATION.—The Administrator may utilize funds to establish a program to incentivize the recovery, recycling, and reclamation of any Class II substances in order to reduce emissions of such substances.

"(B) MULTILATERAL FUND.—If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, which restricts the production and consumption of class II, group II substances, the Administrator may utilize funds to meet any related contribution obligation of the United States to the Multilateral Fund for the Implementation of the Montreal Protocol or similar multilateral fund established under such multilateral agreement.

"(C) BEST-IN-CLASS APPLIANCES DEPLOYMENT PROGRAM.—The Secretary of Energy is authorized to utilize funds to carry out the purposes of section 214 of the American Clean Energy and Security Act of 2009.

"(D) LOW GLOBAL WARMING PRODUCT TRANSITION ASSISTANCE PROGRAM.—

"(i) IN GENERAL.—The Administrator, in consultation with the Secretary of Energy, may utilize funds in fiscal years 2012 through 2022 to establish a program to provide financial assistance to manufacturers of products containing class II, group II substances to facilitate the transition to products that contain or utilize alternative substances with no or low carbon dioxide equivalent value and no ozone depletion potential.

"(ii) DEFINITION.—In this subparagraph, the term 'products' means refrigerators, freezers, dehumidifiers, air conditioners, foam insulation, technical aerosols, fire protection systems, and semiconductors.

"(iii) FINANCIAL ASSISTANCE.—The Administrator may provide financial assistance to manufacturers pursuant to clause (i) for—

"(I) the design and configuration of new products that use alternative substances with no or low carbon dioxide equivalent value and no ozone depletion potential; and

"(II) the redesign and retooling of facilities for the manufacture of products in the United States that use alternative substances with no or low carbon dioxide equivalent value and no ozone depletion potential.

"(iv) REPORTS.—For any fiscal year during which the Administrator provides financial assistance pursuant to this subparagraph, the Administrator shall submit a report to the Congress within 3 months of the end of such fiscal year detailing the amounts, recipients, specific purposes, and results of the financial assistance provided.".

(b) TABLE OF CONTENTS.—The table of contents of title VI of the Clean Air Act (42 U.S.C. 7671 et seq.) is amended by adding the following new item at the end thereof:

"Sec. 619. Hydrofluorocarbons (HFCs).".

(c) FIRE SUPPRESSION AGENTS.—Section 605(a) of the Clean Air Act (42 U.S.C. 7671(a)) is amended—

(1) by striking "or" at the end of paragraph (2);

(2) by striking the period at the end of paragraph (3) and inserting "; or"; and

(3) by adding the following new paragraph after paragraph (3):

"(4) is listed as acceptable for use as a fire suppression agent for nonresidential applications in accordance with section 612(c).".

(d) MOTOR VEHICLE AIR CONDITIONERS.—

(1) Section 609(e) of the Clean Air Act (42 U.S.C. 7671h(e)) is amended by inserting ", group I" after each reference to "class II" in the text and heading.

(2) Section 609 of the Clean Air Act (42 U.S.C. 7671h) is amended by adding the following new subsection after subsection (e):

"(f) CLASS II, GROUP II SUBSTANCES.—

"(1) REPAIR.—The Administrator may promulgate regulations establishing requirements for repair of motor vehicle air conditioners prior to adding a class II, group II substance.

"(2) SMALL CONTAINERS.—(A) The Administrator may promulgate regulations establishing servicing practices and procedures for recovery of class II, group II substances from containers which contain less than 20 pounds of such class II, group II substances.

"(B) Not later than 18 months after enactment of this subsection, the Administrator shall either promulgate regulations requiring that containers which

contain less than 20 pounds of a class II, group II substance be equipped with a device or technology that limits refrigerant emissions and leaks from the container and limits refrigerant emissions and leaks during the transfer of refrigerant from the container to the motor vehicle air conditioner or issue a determination that such requirements are not necessary or appropriate.

"(C) Not later than 18 months after enactment of this subsection, the Administrator shall promulgate regulations establishing requirements for consumer education materials on best practices associated with the use of containers which contain less than 20 pounds of a class II, group II substance and prohibiting the sale or distribution, or offer for sale or distribution, of any class II, group II substance in any container which contains less than 20 pounds of such class II, group II substance, unless consumer education materials consistent with such requirements are displayed and available at point-of-sale locations, provided to the consumer, or included in or on the packaging of the container which contain less than 20 pounds of a class II, group II substance.

"(D) The Administrator may, through rulemaking, extend the requirements established under this paragraph to containers which contain 30 pounds or less of a class II, group II substance if the Administrator determines that such action would produce significant environmental benefits.

"(3) RESTRICTION OF SALES.—Effective January 1, 2014, no person may sell or distribute or offer to sell or distribute or otherwise introduce into interstate commerce any motor vehicle air conditioner refrigerant in any size container unless the substance has been found acceptable for use in a motor vehicle air conditioner under section 612.".

(e) SAFE ALTERNATIVES POLICY.—Section 612(e) of the Clean Air Act (42 U.S.C. 7671k(e)) is amended by inserting "or class II" after each reference to "class I".

SEC. 333. BLACK CARBON.

(a) DEFINITION.—As used in this section, the term "black carbon" means primary light absorbing aerosols, as defined by the Administrator, based on the best available science.

(b) BLACK CARBON ABATEMENT REPORT.—Not later than one year after the date of enactment of this section, the Administrator shall, in consultation with other appropriate Federal agencies, submit to Congress a report regarding black carbon emissions. The report shall include the following:

(1) A summary of the current information and research that identifies—

(A) an inventory of the major sources of black carbon emissions in the United States and throughout the world, including—

(i) an estimate of the quantity of current and projected future emissions; and

(ii) the net climate forcing of the emissions from such sources, including consideration of co-emissions of other pollutants;

(B) effective and cost-effective control technologies, operations, and strategies for additional domestic and international black carbon emissions reductions, such as diesel retrofit technologies on existing on-road, non-road, and stationary engines and programs to address residential cookstoves, and forest and agriculture-based burning;

(C) potential metrics and approaches for quantifying the climatic effects of black carbon emissions, including its radiative forcing and warming effects, that may be used to compare the climate benefits of different mitigation strategies, including an assessment of the uncertainty in such metrics and approaches; and

(D) the public health and environmental benefits associated with additional controls for black carbon emissions.

(2) Recommendations regarding—

(A) development of additional emissions monitoring techniques and capabilities, modeling, and other black carbon-related areas of study;

(B) areas of focus for additional study of technologies, operations, and strategies with the greatest potential to reduce emissions of black carbon and associated public health, economic, and environmental impacts associated with these emissions; and

(C) actions, in addition to those identified by the Administrator under section 851 of the Clean Air Act (as added by subsection (c)), the Federal Government may take to encourage or require reductions in black carbon emissions.

(c) BLACK CARBON MITIGATION.—Title VIII of the Clean Air Act, as added by section 331 of this Act, and amended by section 222 of this Act, is further amended by adding after part D the following new part:

"PART E—BLACK CARBON

"SEC. 851. BLACK CARBON.

"(a) DOMESTIC BLACK CARBON MITIGATION.—Not later than 18 months after the date of enactment of this section, the Administrator, taking into consideration the public health and environmental impacts of black carbon emissions, including the effects on global and regional warming, the Arctic, and other snow and ice-covered surfaces, shall propose regulations under the existing authorities of this Act to reduce emissions of black carbon or propose a finding that existing regulations promulgated pursuant to this Act adequately regulate black carbon emissions. Not later than two years after the date of enactment of this section, the Administrator shall promulgate final regulations under the existing authorities of this Act or finalize the proposed finding.

"(b) INTERNATIONAL BLACK CARBON MITIGATION.—

"(1) REPORT.—Not later than one year after the date of enactment of this section, the Administrator, in coordination with the Secretary of State and other appropriate Federal agencies, shall transmit a report to Congress on the amount, type, and direction of all present United States financial, technical, and related assistance to foreign countries to reduce, mitigate, and otherwise abate black carbon emissions.

"(2) OTHER OPPORTUNITIES.—The report required under paragraph (1) shall also identify opportunities and recommendations, including action under existing authorities, to achieve significant black carbon emission reductions in foreign countries through technical assistance or other approaches to—

"(A) promote sustainable solutions to bring clean, efficient, safe, and affordable stoves, fuels, or both stoves and fuels to residents of developing countries that are reliant on solid fuels such as wood, dung, charcoal, coal, or crop residues for home cooking and heating, so as to help reduce the public health, environmental, and economic impacts of black carbon emissions from these sources by—

"(i) identifying key regions for large-scale demonstration efforts, and key partners in each such region; and

"(ii) developing for each such region a large-scale implementation strategy with a goal of collectively reaching 20,000,000 homes over 5 years with interventions that will—

"(I) increase stove efficiency by over 50 percent (or such other goal as determined by the Administrator);

"(II) reduce emissions of black carbon by over 60 percent (or such other goal as determined by the Administrator); and

"(III) reduce the incidence of severe pneumonia in children under 5 years old by over 30 percent (or such other goal as determined by the Administrator);

"(B) make technological improvements to diesel engines and provide greater access to fuels that emit less or no black carbon;

"(C) reduce unnecessary agricultural or other biomass burning where feasible alternatives exist;

"(D) reduce unnecessary fossil fuel burning that produces black carbon where feasible alternatives exist;

"(E) reduce other sources of black carbon emissions; and

"(F) improve capacity to achieve greater compliance with existing laws to address black carbon emissions.".

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 334. STATES.

Section 116 of the Clean Air Act (42 U.S.C. 7416) is amended by adding the following at the end thereof: "For the purposes of this section, the phrases 'standard or limitation respecting emissions of air pollutants' and 'requirements respecting control or abatement of air pollution' shall include any provision to: cap greenhouse gas emissions, require surrender to the State or a political subdivision thereof of emission allowances or offset credits established or issued under this Act, and require the use of such allowances or credits as a means of demonstrating compliance with requirements established by a State or political subdivision thereof.".

SEC. 335. STATE PROGRAMS.

Title VIII of the Clean Air Act, as added by section 331 of this Act and amended by several sections of this Act, is further amended by adding after part E (as added by section 333(c) of this Act) the following new part:

"PART F—MISCELLANEOUS

"SEC. 861. STATE PROGRAMS.

"Notwithstanding section 116, no State or political subdivision thereof shall implement or enforce a cap and trade program that covers any capped emissions emitted during the years 2012 through 2017. For purposes of this section, the term 'cap and trade program' means a system of greenhouse gas regulation under which a State or political subdivision issues a limited number of tradable instruments in the nature of emission allowances and requires that sources within its jurisdiction surrender such tradeable instruments for each unit of greenhouse gases emitted during a compliance period. For purposes of this section, a 'cap-and-trade program' does not include a target or limit on greenhouse gas emissions adopted by a State or political subdivision that is implemented other than through the issuance and surrender of a limited number of tradable instruments in the nature of emission allowances, nor does it include any other standard, limit, regulation, or program to reduce greenhouse gas emissions that is not implemented through the issuance and surrender of a limited number of tradeable instruments in the nature of emission allowances. For purposes of this section, the term 'cap and trade program' does not include, among other things, fleet-wide motor vehicle emission requirements that allow greater emissions with increased vehicle production, or requirements that fuels, or other products, meet an average pollution emission rate or lifecycle greenhouse gas standard.

"SEC. 862. GRANTS FOR SUPPORT OF AIR POLLUTION CONTROL PROGRAMS.

"The Administrator is authorized to make grants to air pollution control agencies pursuant to section 105 for purposes of assisting in the implementation of programs to address global warming established under the Safe Climate Act.".

SEC. 336. ENFORCEMENT.

(a) REMAND.—Section 307(b) of the Clean Air Act (42 U.S.C. 7607(b)) is amended by adding the following new paragraph at the end thereof:

"(3) If the court determines that any action of the Administrator is arbitrary, capricious, or otherwise unlawful, the court may remand such action, without vacatur, if vacatur would impair or delay protection of the environment or public health or otherwise undermine the timely achievement of the purposes of this Act.".

(b) PETITION FOR RECONSIDERATION.—Section 307(d)(7)(B) of the Clean Air Act (42 U.S.C. 7607(d)(7)(B)) is amended as follows:

(1) By inserting after the second sentence "If a petition for reconsideration is filed, the Administrator shall take final action on such petition, including promulgation of final action either revising or determining not to revise the action for which reconsideration is sought, within 150 days after the petition is received by the Administrator or the petition shall be deemed denied for the purpose of judicial review.".

(2) By amending the third sentence to read as follows: "Such person may seek judicial review of such denial, or of any other final action, by the Administrator, in response to a petition for reconsideration, in the United States court of appeals for the appropriate circuit (as provided in subsection (b)).".

SEC. 337. CONFORMING AMENDMENTS.

(a) FEDERAL ENFORCEMENT.—Section 113 of the Clean Air Act (42 U.S.C. 7413) is amended as follows:

(1) In subsection (a)(3), by striking "or title VI," and inserting "title VI, title VII, or title VIII".

(2) In subsection (b), by striking "or a major stationary source" and inserting "a major stationary source, or a covered EGU under title VIII" in the material preceding paragraph (1).

(3) In paragraph (2) of subsection (b), by striking "or title VI" and inserting "title VI, title VII, or title VIII".

(4) In subsection (c)—

(A) in the first sentence of paragraph (1), by striking "or title VI (relating to stratospheric ozone control)," and inserting "title VI, title VII, or title VIII,"; and

(B) in the first sentence of paragraph (3), by striking "or VI" and inserting "VI, VII, or VIII".

(5) In subsection (d)(1)(B), by striking "or VI" and inserting "VI, VII, or VIII".

(6) In subsection (f), in the first sentence, by striking "or VI" and inserting "VI, VII, or VIII".

(b) RETENTION OF STATE AUTHORITY.—Section 116 of the Clean Air Act (42 U.S.C. 7416) is amended as follows:

(1) By striking "and 233" and inserting "233".

(2) By striking "of moving sources)" and inserting "of moving sources), and 861 (preempting certain State greenhouse gas programs for a limited time)".

(c) INSPECTIONS, MONITORING, AND ENTRY.—Section 114(a) of the Clean Air Act (42 U.S.C. 7414(a)) is amended by striking "section 112," and all that follows through "(ii)" and inserting the following: "section 112, or any regulation of greenhouse gas emissions under title VII or VIII, (ii)".

(d) ENFORCEMENT.—Subsection (f) of section 304 of the Clean Air Act (42 U.S.C. 7604(f)) is amended as follows:

(1) By striking "; or" at the end of paragraph (3) thereof and inserting a comma.

(2) By striking the period at the end of paragraph (4) thereof and inserting ", or".

(3) By adding the following after paragraph (4) thereof:

"(5) any requirement of title VII or VIII.".

(e) ADMINISTRATIVE PROCEEDINGS AND JUDICIAL REVIEW.—Section 307 of the Clean Air Act (42 U.S.C. 7607) is amended as follows:

(1) In subsection (a), by striking ", or section 306" and inserting "section 306, or title VII or VIII".

(2) In subsection (b)(1)—

(A) by striking ",," and inserting "," in each place such punctuation appears; and

(B) by striking "section 120," in the first sentence and inserting "section 120, any final action under title VII or VIII,".

(3) In subsection (d)(1) by amending subparagraph (S) to read as follows:

"(S) the promulgation or revision of any regulation under title VII or VIII,".

SEC. 338. DAVIS-BACON COMPLIANCE.

(a) IN GENERAL.—Notwithstanding any other provision of law and in a manner consistent with other provisions in this Act, to receive emission allowances or funding under this Act the recipient shall provide reasonable assurances that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to this Act, or by any entity established in accordance with this Act, including the Carbon Storage Research Corporation, will be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly known as the "Davis-Bacon Act"). With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

(b) EXEMPTION.—Neither subsection (a) nor the requirements of subchapter IV of chapter 31 of title 40, United States Code, shall apply to retrofitting of any residential building (as defined in section 202(a)(5)), or to retrofitting of a nonresidential building (as defined in section 202(a)(1)) if the net interior space of such nonresidential building is less than 6,500 square feet, or if such nonresidential building is designed for residential use for less than 4 families.

Subtitle D—Carbon Market Assurance

SEC. 341. CARBON MARKET ASSURANCE.

The Federal Power Act (16 U.S.C. 791a and following) is amended by adding at the end the following:

"PART IV—CARBON MARKET ASSURANCE

"SEC. 401. OVERSIGHT AND ASSURANCE OF CARBON MARKETS.

"(a) DEFINITIONS.—In this section:

"(1) CONTRACT OF SALE.—The term 'contract of sale' includes sales, agreements of sale, and agreements to sell.

"(2) COVERED ENTITY.—The term 'covered entity' shall have the meaning given in section 700 of the Clean Air Act.

"(3) FUTURE DELIVERY.—The term 'future delivery' does not include any sale of any cash commodity for deferred shipment or delivery.

"(4) OFFSET CREATION CONTRACT.—The term 'offset creation contract' mean a written agreement for the origination and development of an offset project, and the related issuance of offset credits, pursuant to title VII of the Clean Air Act.

"(5) REGULATED ALLOWANCE.—The term 'regulated allowance' means any emission allowance, compensatory allowance, offset credit, or Federal renewable electricity credit established or issued under the American Clean Energy and Security Act of 2009.

"(6) REGULATED ALLOWANCE DERIVATIVE.—The term 'regulated allowance derivative' means an instrument that is, or includes, an instrument—

"(A) which—

"(i) is of the character of, or is commonly known to the trade as, a 'put option', 'call option', 'privilege', 'indemnity', 'advance guaranty', 'decline guaranty', or 'swap agreement'; or

"(ii) is a contract of sale for future delivery other than an offset creation contract; and

"(B) the value of which, in whole or in part, is expressly linked to the price of a regulated allowance or another regulated allowance derivative.

"(7) REGULATED INSTRUMENT.—The term 'regulated instrument' means a regulated allowance or a regulated allowance derivative.

"(b) REGULATED ALLOWANCE MARKET.—

"(1) AUTHORITY.—The Commission shall promulgate regulations for the establishment, operation, and oversight of markets for regulated allowances not later than 18 months after the date of the enactment of this section, and from time to time thereafter as may be appropriate.

"(2) REGULATIONS.—The regulations promulgated pursuant to paragraph (1) shall—

"(A) provide for effective and comprehensive market oversight;

"(B) prohibit fraud, market manipulation (including an entity's fraudulent or manipulative conduct with respect to regulated allowance derivatives that benefits the entity in regulated allowance markets), and excess speculation, and provide measures to limit unreasonable fluctuation in the prices of regulated allowances;

"(C) facilitate compliance with title VII of the Clean Air Act by covered entities;

"(D) ensure market transparency and recordkeeping deemed necessary and appropriate by the Commission to provide for efficient price discovery; prevention of fraud, market manipulation, and excess speculation; and compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978;

"(E) as necessary, ensure that position limitations for individual market participants are established with respect to each class of regulated allowances;

"(F) as necessary, ensure that margin requirements are established for each class of regulated allowances;

"(G) provide for the formation and operation of a fair, orderly and liquid national market system that allows for the best execution in the trading of regulated allowances;

"(H) limit or eliminate counterparty risks, market power concentration risks, and other risks associated with over-the-counter trading; and

"(I) establish standards for qualification as, and operation of, trading facilities for regulated allowances;

"(J) establish standards for qualification as, and operation of, clearing organizations for trading facilities for regulated allowances; and

"(K) include such other requirements as necessary to preserve market integrity and facilitate compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978 and the regulations promulgated under such title and such section.

"(3) ENFORCEMENT.—

"(A) IN GENERAL.—If the Commission determines, after notice and an opportunity for a hearing on the record, that any entity has violated any rule or order issued by the Commission under this subsection, the Commission may issue an order—

"(i) prohibiting the entity from trading on a trading facility for regulated allowances registered with the Commission, and requiring all such facilities to refuse the entity all privileges for such period as may be specified in the order;

"(ii) if the entity is registered with the Commission in any capacity, suspending for a period of not more than 6 months, or revoking, the registration of the entity;

"(iii) assessing the entity a civil penalty of not more than $1,000,000 per day per violation for as long as the violation continues (and in determining the amount of a civil penalty, the Commission shall take into account the nature and seriousness of the violation and the efforts to remedy the violation); and

"(iv) requiring disgorgement of unjust profits, restitution to entities harmed by the violation as determined by the Commission, or both.

"(B) AUTHORITY TO SUSPEND OR REVOKE REGISTRATION.—The Commission may suspend for a period of not more than 6 months, or revoke, the registration of a trading facility for regulated allowances or of a clearing organization registered by the Commission if, after notice and opportunity for a hearing on the record, the Commission finds that—

"(i) the entity violated any rule or order issued by the Commission under this subsection; or

"(ii) a director, officer, employee, or agent of the entity has violated any rule or order issued by the Commission under this subsection.

"(C) CEASE AND DESIST PROCEEDINGS.—

"(i) IN GENERAL.—If the Commission determines that any entity may be violating, may have violated, or may be about to violate any provision of this part, or any regulation promulgated by, or any restriction, condition, or order made or imposed by, the Commission under this Act, and if the Commission finds that the alleged violation or threatened violation, or the continuation of the violation, is likely to result in significant harm to covered entities or market participants, or significant harm to the public interest, the Commission may issue a temporary order requiring the entity—

"(I) to cease and desist from the violation or threatened violation;

"(II) to take such action as is necessary to prevent the violation or threatened violation; and

"(III) to prevent, as the Commission determines to be appropriate—

"(aa) significant harm to covered entities or market participants;

"(bb) significant harm to the public interest; and

"(cc) frustration of the ability of the Commission to conduct the proceedings or to redress the violation at the conclusion of the proceedings.

"(ii) TIMING OF ENTRY.—An order issued under clause (i) shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing before entry would be impracticable or contrary to the public interest.

"(iii) EFFECTIVE DATE.—A temporary order issued under clause (i) shall—

"(I) become effective upon service upon the entity; and

"(II) unless set aside, limited, or suspended by the Commission or a court of competent jurisdiction, remain effective and enforceable pending the completion of the proceedings.

"(D) PROCEEDINGS REGARDING DISSIPATION OR CONVERSION OF ASSETS.—

"(i) IN GENERAL.—In a proceeding involving an alleged violation of a regulation or order promulgated or issued by the Commission, if the Commission determines that the alleged violation or related circumstances are likely to result in significant dissipation or conversion of assets, the Commission may issue a temporary order requiring the respondent to take such action as is necessary to prevent the dissipation or conversion of assets.

"(ii) TIMING OF ENTRY.—An order issued under clause (i) shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing before entry would be impracticable or contrary to the public interest.

"(iii) EFFECTIVE DATE.—A temporary order issued under clause (i) shall—

"(I) become effective upon service upon the respondent; and

"(II) unless set aside, limited, or suspended by the Commission or a court of competent jurisdiction, remain effective and enforceable pending the completion of the proceedings.

"(E) REVIEW OF TEMPORARY ORDERS.—

"(i) APPLICATION FOR REVIEW.—At any time after a respondent has been served with a temporary cease-and-desist order pursuant to subparagraph (C) or order regarding the dissipation or conversion of assets

pursuant to subparagraph (D), the respondent may apply to the Commission to have the order set aside, limited, or suspended.

"(ii) NO PRIOR HEARING.—If a respondent has been served with a temporary order entered without a prior hearing of the Commission—

"(I) the respondent may, not later than 10 days after the date on which the order was served, request a hearing on the application; and

"(II) the Commission shall hold a hearing and render a decision on the application at the earliest practicable time.

"(iii) JUDICIAL REVIEW.—

"(I) IN GENERAL.—An entity shall not be required to submit a request for rehearing of a temporary order before seeking judicial review in accordance with this subparagraph.

"(II) TIMING OF REVIEW.—Not later than 10 days after the date on which a respondent is served with a temporary cease-and-desist order entered with a prior hearing of the Commission, or 10 days after the date on which the Commission renders a decision on an application and hearing under clause (i) with respect to any temporary order entered without such a prior hearing—

"(aa) the respondent may obtain a review of the order in a United States circuit court having jurisdiction over the circuit in which the respondent resides or has a principal place of business, or in the United States Court of Appeals for the District of Columbia Circuit, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order; and

"(bb) the court shall have jurisdiction to enter such an order.

"(III) NO PRIOR HEARING.—A respondent served with a temporary order entered without a prior hearing of the Commission may not apply to the applicable court described in subclause (II) except after a hearing and decision by the Commission on the application of the respondent under clauses (i) and (ii).

"(iv) PROCEDURES.—Section 222 and Part III shall apply to—

"(I) an application for review of an order under clause (i); and

"(II) an order subject to review under clause (iii).

"(v) NO AUTOMATIC STAY OF TEMPORARY ORDER.—The commencement of proceedings under clause (iii) shall not, unless specifically ordered by the court, operate as a stay of the order of the Commission.

"(F) ACTIONS TO COLLECT CIVIL PENALTIES.—If any person fails to pay a civil penalty assessed under this subsection after an order assessing the penalty has become final and unappealable, the Commission shall bring an action to recover the amount of the penalty in any appropriate United States district court. In any such action, the validity or appropriateness of the final assessment order or judgment shall not be subject to review.

"(4) TRANSACTION FEES.—

"(A) IN GENERAL.—The Commission shall, in accordance with this paragraph, establish and collect transaction fees designed to recover the costs to the Federal Government of the supervision and regulation of regulated allowance markets and market participants, including related costs for enforcement activities, policy and rulemaking activities, administration, legal services, and international regulatory activities.

"(B) INITIAL FEE RATE.—Each trading facility on or through which regulated allowances are transacted shall pay to the Commission a fee at a rate of not more than $15 per $1,000,000 of the aggregate dollar amount of sales of regulated allowances transacted through the facility.

"(C) ANNUAL ADJUSTMENT OF FEE RATE.—The Commission shall, on an annual basis—

"(i) assess the rate at which fees are to be collected as necessary to meet the cost recovery requirement in subparagraph (A); and

"(ii) consistent with subparagraph (B), adjust the rate as necessary in order to meet the requirement.

"(D) REPORT ON ADEQUACY OF FEES IN RECOVERING COSTS.—The Commission, shall, on an annual basis, report to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate on the adequacy of the transaction fees in providing funding for the Commission to regulate the regulated allowance markets.

"(5) JUDICIAL REVIEW.—Judicial review of actions taken by the Commission under this subsection shall be pursuant to part III.

"(6) INFORMATION-SHARING.—Within 6 months after a Federal agency with jurisdiction over regulated allowance derivatives is delegated authority pursuant to subsection (c)(1), the agency shall enter into a memorandum of understanding with the Commission relating to information sharing, which shall include provisions ensuring that information requests to markets within the respective jurisdiction of the agency are properly coordinated to facilitate, among other things, effective information-sharing while minimizing duplicative information requests, and provisions regarding the treatment of proprietary information.

"(7) ADDITIONAL EMPLOYEES REPORT AND APPOINTMENT.—Within 18 months after the date of the enactment of this section, the Commission shall submit to the President, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Energy and Natural Resources of the Senate, a report that contains recommendations as to how many additional employees would be necessary to provide robust oversight and enforcement of the regulations promulgated under this subsection. As soon as practicable after the completion of the report, subject to appropriations, the Commission shall appoint the recommended number of additional employees for such purposes.

"(c) DELEGATION OF AUTHORITY BY THE PRESIDENT.—

"(1) DELEGATION.—The President, taking into consideration the recommendations of the interagency working group established in subsection (d), shall delegate to members of the working group and the heads of other appropriate Federal agencies the authority to promulgate regulations for the establishment, operation, and oversight of all markets for regulated allowance derivatives.

"(2) REGULATIONS.—The regulations promulgated pursuant to paragraph (1) shall—

"(A) provide for effective and comprehensive market oversight;

"(B) prohibit fraud, market manipulation, and excess speculation, and provide measures to limit unreasonable fluctuation in the prices of regulated allowance derivatives;

"(C) facilitate compliance with title VII of the Clean Air Act by covered entities;

"(D) ensure market transparency and recordkeeping necessary to provide for efficient price discovery; prevention of fraud, market manipulation, and excess speculation; and compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978;

"(E) ensure that position limitations for individual market participants are established with respect to each regulated allowance derivative and aggregate position limitations for individual market participants are established with respect to all regulated allowance derivative markets;

"(F) ensure that margin requirements are established for each regulated allowance derivative;

"(G) provide for the formation and operation of a market system that allows for best execution in the trading of regulated allowance derivatives;

"(H) to the extent the regulations deviate from the rule set forth in paragraph (4)(B), limit or eliminate counterparty risks, market power concentration risks, and other risks associated with over-the-counter trading, and promulgate reporting and market transparency rules for large traders;

"(I) ensure that market participants do not evade position limits or otherwise undermine the integrity and effectiveness of the regulations promulgated under subparagraph (C) through participation in markets not subject to the position limits and regulations;

"(J) establish standards, as necessary, for qualification as, and operation of, trading facilities for regulated allowance derivatives;

"(K) establish standards, as necessary, for qualification as, and operation of, clearing organizations for trading facilities for regulated allowance derivatives;

"(L) provide boards of trade designated as contract markets under the Commodity Exchange Act, and market participants, with an adequate transition period for compliance with any new regulatory requirements established under this paragraph;

"(M) determine whether and to what extent offset creation contracts, to the extent incorporating regulated allowance derivatives, should be governed by the same regulations that apply to other regulated allowance derivatives; and

"(N) include such other requirements as necessary to preserve market integrity and facilitate compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978 and the regulations promulgated under such title and such section.

"(3) DEADLINE.—The agencies authorized to promulgate regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives pursuant to paragraph (1) shall promulgate such regulations not later than 18 months after the date of the enactment of this section, and from time to time thereafter as may be appropriate.

"(4) DEFAULT RULES.—

"(A) An individual market participant, directly or in concert with another participant, shall not control more than 10 percent of the open interest in any regulated allowance derivative.

"(B) All contracts for the purchase or sale of any regulated allowance derivative shall be executed on or through a board of trade designated as a contract market under the Commodity Exchange Act.

"(C) To the extent that regulations promulgated under this subsection provide different rules with respect to the matters described in subparagraph (A) or (B), the regulations shall supersede subparagraph (A) or (B), as the case may be.

"(d) WORKING GROUP.—

"(1) ESTABLISHMENT.—Not later than 30 days after the date of the enactment of this section, the President shall establish an interagency working group on carbon market oversight, which shall include the Administrator of the Environmental Protection Agency and representatives of other relevant agencies, to make recommendations to the President regarding proposed regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives.

"(2) REPORT.—Not later than 180 days after the date of the enactment of this section, and biennially thereafter, the interagency working group shall submit a written report to the President and Congress that includes its recommendations to the President regarding proposed regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives and any recommendations to Congress for statutory changes needed to ensure the establishment, operation, and oversight of transparent, fair, stable, and efficient markets for regulated allowance derivatives.

"(e) ENFORCEMENT OF REGULATIONS.—Each Federal agency that promulgates under subsection (c) a regulation of conduct with respect to a regulated allowance derivative shall have the same authority to enforce compliance with the regulation as the Commodity Futures Trading Commission has to enforce compliance with any regulation of similar conduct with respect to a contract, agreement, or transaction over which the Commodity Futures Trading Commission has jurisdiction, except that any enforcement by the Federal Energy Regulatory Commission shall be pursuant to section 222 and Part III.

"(f) PROHIBITION ON PRICE OR MARKET MANIPULATION, FRAUD, AND FALSE OR MISLEADING STATEMENTS OR REPORTS.—(1) It shall be a felony punishable by a fine of not more than $25,000,000 (or $5,000,000 in the case of a person who is an individual) or imprisonment for not more than 20 years, or both, together with the costs of prosecution for any person, directly or indirectly—

"(A) in connection with a transaction involving a regulated instrument, to knowingly—

"(i) use any manipulative or deceptive device or contrivance in violation of regulations promulgated pursuant to this section;

"(ii) corner or attempt to corner the regulated instrument; or

"(iii) cheat or defraud, or attempt to cheat or defraud, any other person;

"(B) to knowingly deliver or cause to be delivered a false, misleading, or inaccurate report concerning information or conditions that affect or tend to affect the price of a regulated instrument;

"(C) to knowingly make, or cause to be made, in an application, report, or document required to be filed under any regulation promulgated pursuant to this section, a statement which is false or misleading with respect to a material fact, or to omit any material fact required to be stated therein or necessary to make the statements therein not misleading; or

"(D) to knowingly falsify, conceal, or cover up by any trick, scheme, or artifice a material fact, make any false, fictitious, or fraudulent statements or representations, or make or use any false writing or document that contains a false, fictitious, or fraudulent statement or entry, to an entity on or through which transactions in regulated instruments occur, or are settled or cleared, acting in furtherance of its official duties under this section or regulations promulgated under this section.

"(2) If a person is found guilty of a felony established in paragraph (1), the person may be prohibited from holding or trading regulated instruments for a period of not more than 5 years pursuant to the regulations promulgated under this section, ex-

cept that, if the person is a covered entity, the person shall be allowed to hold sufficient regulated allowances to meet its compliance obligations.

"(g) RELATION TO STATE LAW.—Nothing in this section shall preclude, diminish or qualify any authority of a State or political subdivision thereof to adopt or enforce any unfair competition, antitrust, consumer protection, securities, commodities or any other law or regulation, except that no such State law or regulation may relieve any person of any requirement otherwise applicable under this section.

"(h) MARKET REPORTS.—

"(1) COLLECTION AND ANALYSIS OF INFORMATION.—The Commission, in conjunction with the Federal agency with jurisdiction over regulated allowance derivatives pursuant to subsection (c)(1), shall, on a continuous basis, collect and analyze the following information on the functioning of the markets for regulated instruments established under this part:

"(A) The status of, and trends in, the markets, including prices, trading volumes, transaction types, and trading channels and mechanisms.

"(B) Spikes, collapses, and volatility in prices of regulated instruments, and the causes therefor.

"(C) The relationship between the market for regulated allowances and allowance derivatives, and the spot and futures markets for energy commodities, including electricity.

"(D) Evidence of fraud or manipulation in any such market, the effects on any such market of any such fraud or manipulation (or threat of fraud or manipulation) that the Commission, in conjunction with the Federal agency, has identified, and the effectiveness of corrective measures undertaken by the Commission, in conjunction with the Federal agency, to address the fraud, manipulation, or threat.

"(E) The economic effects of the markets, including to macro- and microeconomic effects of unexpected significant increases and decreases in the price of regulated instruments.

"(F) Any changes in the roles, activities, or strategies of various market participants.

"(G) Regional, industrial, and consumer responses to the markets, and energy investment responses to the markets.

"(H) Any other issue related to the markets that the Commission, in conjunction with the entities, deems appropriate.

"(2) ANNUAL REPORTS TO THE CONGRESS.— Not later than 1 month after the end of each calendar year, the Commission, in conjunction with the Federal agency, shall submit to the President, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Energy and Natural Resources of the Senate, and make available to the public, a report on the matters described in paragraph (1) with respect to the year, including recommendations for any administrative or statutory measures the Commission, in conjunction with the Federal agency, considers necessary to address any threats to the transparency, fairness, or integrity of the markets in regulated instruments.

"SEC. 402. APPLICABILITY OF PART III PROVISIONS.

"(a) SECTIONS 301, 304, AND 306.—Sections 301, 304, and 306 shall not apply to this part.

"(b) SECTIONS 307, 309, AND 314.—Sections 307, 309, and 314 shall only apply to section 401(c) to the extent that the Commission is delegated authority to promulgate regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives (as defined in section 401). If the Commission is not delegated authority to promulgate regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives, sections 307, 309, and 314 shall not apply to section 401(f) in the case of regulated allowance derivatives.

"(c) SECTION 315.—In applying section 315(a) to this part, the words "person or entity" shall be substituted for the words "licensee or public utility". In applying section 315(b) to this part, the words "an entity" shall be substituted for the words "a licensee or public utility" and the words "such entity" shall be substituted for the words "such licensee or public utility."

"(d) SECTION 316.—Section 316(a) shall not apply to section 401(f).".

Subtitle E—Additional Market Assurance

SEC. 351. REGULATION OF CERTAIN TRANSACTIONS IN DERIVATIVES INVOLVING ENERGY COMMODITIES.

(a) ENERGY COMMODITY DEFINED.—Section 1a of the Commodity Exchange Act (7 U.S.C. 1a) is amended—

(1) in paragraph (14), by inserting ", an energy commodity," after "excluded commodity";

(2) by redesignating paragraphs (13) through (21) and paragraphs (22) through (34) as paragraphs (14) through (22) and paragraphs (24) through (36), respectively;

(3) by inserting after paragraph (12) the following:

"(13) ENERGY COMMODITY.—The term 'energy commodity' means—

"(A) coal;

"(B) crude oil, gasoline, diesel fuel, jet fuel, heating oil, and propane;

"(C) electricity (excluding financial transmission rights which are subject to regulation and oversight by the Federal Energy Regulatory Commission);

"(D) natural gas; and

"(E) any other substance (other than an excluded commodity, a metal, or an agricultural commodity) that is used as a source of energy, as the Commission, in its discretion, deems appropriate."; and

(4) by inserting after paragraph (22) (as so redesignated by paragraph (2) of this subsection) the following:

"(23) INCLUDED ENERGY TRANSACTION.—The term 'included energy transaction' means a contract, agreement, or transaction in an energy commodity for future delivery that provides for a delivery point of the energy commodity in the United States or a territory or possession of the United States, or that is offered or transacted on or through a computer terminal located in the United States.".

(b) EXTENSION OF REGULATORY AUTHORITY TO SWAPS INVOLVING ENERGY TRANSACTIONS.—Section 2(g) of such Act (7 U.S.C. 2(g)) is amended by inserting "or an energy commodity" after "agricultural commodity".

(c) ELIMINATION OF EXEMPTION FOR OVER-THE-COUNTER SWAPS INVOLVING ENERGY COMMODITIES.—Section 2(h)(1) of such Act (7 U.S.C. 2(h)(1)) is amended by inserting "(other than an energy commodity)" after "exempt commodity".

(d) EXTENSION OF REGULATORY AUTHORITY TO INCLUDED ENERGY TRANSACTIONS ON FOREIGN BOARDS OF TRADE.—Section 4 of such Act (7 U.S.C. 6) is amended—

(1) in subsection (a), by inserting ", and which is not an included energy transaction" after "territories or possessions" the 2nd place it appears; and

(2) in subsection (b), by adding at the end the following: "The preceding sentence shall not apply with respect to included energy transactions.".

(e) LIMITATION OF GENERAL EXEMPTIVE AUTHORITY OF THE CFTC WITH RESPECT TO INCLUDED ENERGY TRANSACTIONS.—

(1) IN GENERAL.—Section 4(c) of such Act (7 U.S.C. 6(c)) is amended by adding at the end the following:

"(6) The Commission may not exempt any included energy transaction from the requirements of subsection (a), unless the Commission provides 60 days advance notice to the Congress and the Position Limit Energy Advisory Group and solicits public comment about the exemption request and any proposed Commission action.".

(2) NULLIFICATION OF NO-ACTION LETTER EXEMPTIONS TO CERTAIN REQUIREMENTS APPLICABLE TO INCLUDED ENERGY TRANSACTIONS.—Beginning 180 days after the date of the enactment of this Act, any exemption provided by the Commodity Futures Trading Commission that has allowed included energy transactions (as defined in section 1a(13) of the Commodity Exchange Act) to be conducted without regard to the requirements of section 4(a) of such Act shall be null and void.

(f) REQUIREMENT TO ESTABLISH UNIFORM SPECULATIVE POSITION LIMITS FOR ENERGY TRANSACTIONS.—

(1) IN GENERAL.—Section 4a(a) of such Act (7 U.S.C. 6a(a)) is amended—

(A) by inserting "(1)" after "(a)";

(B) by inserting after the 2nd sentence the following: "With respect to energy transactions, the Commission shall fix limits on the aggregate number of positions which may be held by any person for each month across all markets subject to the jurisdiction of the Commission.";

(C) in the 4th sentence by inserting ", consistent with the 3rd sentence," after "Commission"; and

(D) by adding after and below the end the following:

"(2)(A) Not later than 60 days after the date of the enactment of this paragraph, the Commission shall convene a Position Limit Energy Advisory Group consisting of representatives from—

"(i) 7 predominantly commercial short hedgers of the actual energy commodity for future delivery;

"(ii) 7 predominantly commercial long hedgers of the actual energy commodity for future delivery;

"(iii) 4 non-commercial participants in markets for energy commodities for future delivery; and

"(iv) each designated contract market or derivatives transaction execution facility upon which a contract in the energy commodity for future delivery is traded, and each electronic trading facility that has a significant price discovery contract in the energy commodity.

"(B) Not later than 60 days after the date on which the advisory group is convened under subparagraph (A), and annually thereafter, the advisory group shall submit to the Commission advisory recommendations regarding the position limits to be established in paragraph (1).

"(C) The Commission shall have exclusive authority to grant exemptions for bona fide hedging transactions and positions from position limits imposed under this Act on energy transactions.".

(2) CONFORMING AMENDMENTS.—

(A) SIGNIFICANT PRICE DISCOVERY CONTRACTS.—Section 2(h)(7) of such Act (7 U.S.C. 2(h)(7)) is amended—

(i) in subparagraph (A)—

(I) by inserting "of this paragraph and section 4a(a)" after "(B) through (D)"; and

(II) by inserting "of this paragraph" before the period; and

(ii) in subparagraph (C)(ii)(IV)—

(I) in the heading, by striking "LIMITATIONS OR"; and

(II) by striking "position limitations or".

(B) CONTRACTS TRADED ON OR THROUGH DESIGNATED CONTRACT MARKETS.—Section 5(d)(5) of such Act (7 U.S.C. 7(d)(5)) is amended—

(i) in the heading by striking "LIMITATIONS OR"; and

(ii) by striking "position limitations or".

(C) CONTRACTS TRADED ON OR THROUGH DERIVATIVES TRANSACTION EXECUTION FACILITIES.—Section 5a(d)(4) of such Act (7 U.S.C. 7a(d)(4)) is amended—

(i) in the heading by striking "LIMITATIONS OR"; and

(ii) by striking "position limits or".

(g) ELIMINATION OF THE SWAPS LOOPHOLE.—Section 4a(c) of such Act (7 U.S.C. 6a(c)) is amended—

(1) by inserting "(1)" after "(c)"; and

(2) by adding after and below the end the following:

"(2) For the purposes of contracts of sale for future delivery and options on such contracts or commodities, the Commission shall define what constitutes a bona fide hedging transaction or position as a transaction or position that—

"(A)(i) represents a substitute for transactions made or to be made or positions taken or to be taken at a later time in a physical marketing channel;

"(ii) is economically appropriate to the reduction of risks in the conduct and management of a commercial enterprise; and

"(iii) arises from the potential change in the value of—

"(I) assets that a person owns, produces, manufactures, processes, or merchandises or anticipates owning, producing, manufacturing, processing, or merchandising;

"(II) liabilities that a person owns or anticipates incurring; or

"(III) services that a person provides, purchases, or anticipates providing or purchasing; or

"(B) reduces risks attendant to a position resulting from a transaction that—

"(i) was executed pursuant to subsection (d), (g), (h)(1), or (h)(2) of section 2, or an exemption issued by the Commission by rule, regulation or order; and

"(ii) was executed opposite a counterparty for which the transaction would qualify as a bona fide hedging transaction pursuant to paragraph (2)(A) of this subsection.".

(h) DETAILED REPORTING AND DISAGGREGATION OF MARKET DATA.—Section 4 of such Act (7 U.S.C. 6) is amended by adding at the end the following:

"(e) DETAILED REPORTING AND DISAGGREGATION OF MARKET DATA.—

"(1) INDEX TRADERS AND SWAP DEALERS REPORTING.—The Commission shall issue a proposed rule defining and classifying index traders and swap dealers (as those terms are defined by the Commission) for purposes of data reporting requirements and setting routine detailed reporting requirements for any positions of such entities in contracts traded on designated contract markets, over-the-counter markets, derivatives transaction execution facilities, foreign boards of trade subject to section 4(f), and electronic trading facilities with respect to significant price discovery contracts not later than 120 days after the date of

the enactment of this subsection, and issue a final rule within 180 days after such date of enactment.

"(2) DISAGGREGATION OF INDEX FUNDS AND OTHER DATA IN MARKETS.—Subject to section 8 and beginning within 60 days of the issuance of the final rule required by paragraph (1), the Commission shall disaggregate and make public weekly—

"(A) the number of positions and total notional value of index funds and other passive, long-only and short-only positions (as defined by the Commission) in all markets to the extent such information is available; and

"(B) data on speculative positions relative to bona fide physical hedgers in those markets to the extent such information is available.

"(3) DISCLOSURE OF IDENTITY OF HOLDERS OF POSITIONS IN INDEXES IN EXCESS OF POSITION LIMITS.—The Commission shall include in its weekly Commitment of Trader reports the identity of each person who holds a position in an index in excess of a limit imposed under section 4i.".

(i) AUTHORITY TO SET LIMITS TO PREVENT EXCESSIVE SPECULATION IN INDEXES.—

(1) IN GENERAL.—Section 4a of such Act (7 U.S.C. 6a) is amended by adding at the end the following:

"(f) The provisions of this section shall apply to the amounts of trading which may be done or positions which may be held by any person under contracts of sale of an index for future delivery on or subject to the rules of any contract market, derivatives transaction execution facility, or over-the-counter market, or on an electronic trading facility with respect to a significant price discovery contract, in the same manner in which this section applies to contracts of sale of a commodity for future delivery.".

(2) REGULATIONS.—The Commodity Futures Trading Commission shall issue regulations under section 4a(f) of the Commodity Exchange Act within 180 days after the date of the enactment of this Act.

SEC. 352. NO EFFECT ON AUTHORITY OF THE FEDERAL ENERGY REGULATORY COMMISSION.

Section 2 of the Commodity Exchange Act (7 U.S.C. 2) is amended by adding at the end the following:.

"(j) This Act shall not be interpreted to affect the jurisdiction of the Federal Energy Regulatory Commission with respect to the authority of the Federal Energy Regulatory Commission under the Federal Power Act (16 U.S.C. 791a et seq.), the Natural Gas Act (15 U.S.C. 717 et seq.), or other law to obtain information, carry out enforcement actions, or otherwise carry out the responsibilities of the Federal Energy Regulatory Commission.".

SEC. 353. INSPECTOR GENERAL OF THE COMMODITY FUTURES TRADING COMMISSION.

(a) ELEVATION OF OFFICE.—

(1) INCLUSION OF CFTC IN DEFINITION OF ESTABLISHMENT.—

(A) Section 12(1) of the Inspector General Act of 1978 (5 U.S.C. App.) is amended by striking "or the Federal Cochairpersons of the Commissions established under section 15301 of title 40, United States Code;" and inserting "the Federal Cochairpersons of the Commissions established under section 15301 of title 40, United States Code; or the Chairman of the Commodity Futures Trading Commission;".

(B) Section 12(2) of the Inspector General Act of 1978 (5 U.S.C. App.) is amended by striking "or the Commissions established under section 15301 of title 40, United States Code," and inserting "the Commissions established under section 15301 of title 40, United States Code, or the Commodity Futures Trading Commission,".

(2) EXCLUSION OF CFTC FROM DEFINITION OF DESIGNATED FEDERAL ENTITY.—Section 8G(a)(2) of the Inspector General Act of 1978 (5 U.S.C. App.) is amended by striking "the Commodity Futures Trading Commission,".

(b) EFFECTIVE DATE; TRANSITION RULE.—

(1) EFFECTIVE DATE.—The amendments made by this section shall take effect 30 days after the date of the enactment of this Act.

(2) TRANSITION RULE.—An individual serving as Inspector General of the Commodity Futures Trading Commission on the effective date of this section pursuant to an appointment made under section 8G of the Inspector General Act of 1978 (5 U.S.C. App.)—

(A) may continue so serving until the President makes an appointment under section 3(a) of such Act consistent with the amendments made by this section; and

(B) shall, while serving under subparagraph (A), remain subject to the provisions of section 8G of such Act which apply with respect to the Commodity Futures Trading Commission.

SEC. 354. SETTLEMENT AND CLEARING THROUGH REGISTERED DERIVATIVES CLEARING ORGANIZATIONS.

(a) IN GENERAL.—

(1) APPLICATION TO EXCLUDED DERIVATIVE TRANSACTIONS.—

(A) Section 2(d)(1) of the Commodity Exchange Act (7 U.S.C. 2(d)(1)) is amended—

(i) by striking "and" at the end of subparagraph (A);

(ii) by striking the period at the end of subparagraph (B) and inserting "; and"; and

(iii) by adding at the end the following:

"(C) except as provided in section 4(f), the agreement, contract, or transaction is settled and cleared through a derivatives clearing organization registered with the Commission.".

(B) Section 2(d)(2) of such Act (7 U.S.C. 2(d)(2)) is amended—

(i) by striking "and" at the end of subparagraph (B);

(ii) by striking the period at the end of subparagraph (C) and inserting "; and"; and

(iii) by adding at the end the following:

"(D) except as provided in section 4(f), the agreement, contract, or transaction is settled and cleared through a derivatives clearing organization registered with the Commission.".

(2) APPLICATION TO CERTAIN SWAP TRANSACTIONS.—Section 2(g) of such Act (7 U.S.C. 2(g)) is amended—

(A) by striking "and" at the end of paragraph (2);

(B) by striking the period at the end of paragraph (3) and inserting "; and"; and

(C) by adding at the end the following:

"(4) except as provided in section 4(f), settled and cleared through a derivatives clearing organization registered with the Commission.".

(3) APPLICATION TO CERTAIN TRANSACTIONS IN EXEMPT COMMODITIES.—

(A) Section 2(h)(1) of such Act (7 U.S.C. 2(h)(1)) is amended—

(i) by striking "and" at the end of subparagraph (A);

(ii) by striking the period at the end of subparagraph (B) and inserting "; and"; and

(iii) by adding at the end the following:

"(C) except as provided in section 4(f), is settled and cleared through a derivatives clearing organization registered with the Commission.".

(B) Section 2(h)(3) of such Act (7 U.S.C. 2(h)(3)) is amended—

(i) by striking "and" at the end of subparagraph (A);

(ii) by striking the period at the end of subparagraph (B) and inserting "; and"; and

(iii) by adding at the end the following:

"(C) except as provided in section 4(f), settled and cleared through a derivatives clearing organization registered with the Commission.".

(4) GENERAL EXEMPTIVE AUTHORITY.—Section 4(c)(1) of such Act (7 U.S.C. 6(c)(1)) is amended by inserting "the agreement, contract, or transaction, except as provided in section 4(h), will be settled and cleared through a derivatives clearing organization registered with the Commission and" before "the Commission determines".

(5) CONFORMING AMENDMENT RELATING TO SIGNIFICANT PRICE DISCOVERY CONTRACTS.—Section 2(h)(7)(D) of such Act (7 U.S.C. 2(h)(7)(D)) is amended by striking the designation and heading for the subparagraph and all that follows through "As part of" and inserting the following:

"(D) REVIEW OF IMPLEMENTATION.—As part of".

(b) ALTERNATIVES TO CLEARING THROUGH DESIGNATED CLEARING ORGANIZATIONS.—Section 4 of such Act (7 U.S.C. 6), as amended by section 351(h) of this Act, is amended by adding at the end the following:

"(f) ALTERNATIVES TO CLEARING THROUGH DESIGNATED CLEARING ORGANIZATIONS.—

"(1) SETTLEMENT AND CLEARING THROUGH CERTAIN OTHER REGULATED ENTITIES.—An agreement, contract, or transaction, or class thereof, relating to an excluded commodity, that would otherwise be required to be settled and cleared by section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), or 2(h)(3)(C) of this Act, or subsection (c)(1) of this section may be settled and cleared through an entity listed in subsections (a) or (b) of section 409 of the Federal Deposit Insurance Corporation Improvement Act of 1991.

"(2) WAIVER OF CLEARING REQUIREMENT.—

"(A) The Commission, in its discretion, may exempt an agreement, contract, or transaction, or class thereof, that would otherwise be required by

section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), or 2(h)(3)(C) of this Act, or subsection (c)(1) of this section to be settled and cleared through a derivatives clearing organization registered with the Commission from such requirement.

"(B) In granting exemptions pursuant to subparagraph (A), the Commission shall consult with the Securities and Exchange Commission and the Board of Governors of the Federal Reserve System regarding exemptions that relate to excluded commodities or entities for which the Securities Exchange Commission or the Board of Governors of the Federal Reserve System serve as the primary regulator.

"(C) Before granting an exemption pursuant to subparagraph (A), the Commission shall find that the agreement, contract, or transaction, or class thereof—

"(i) is highly customized as to its material terms and conditions;

"(ii) is transacted infrequently;

"(iii) does not serve a significant price-discovery function in the marketplace; and

"(iv) is being entered into by parties who can demonstrate the financial integrity of the agreement, contract, or transaction and their own financial integrity, as such terms and standards are determined by the Commission. The standards may include, with respect to any federally regulated financial entity for which net capital requirements are imposed, a net capital requirement associated with any agreement, contract, or transaction subject to an exemption from the clearing requirement that is higher than the net capital requirement that would be associated with such a transaction were it cleared

"(D) Any agreement, contract, or transaction, or class thereof, which is exempted pursuant to subparagraph (A) shall be reported to the Commission in a manner designated by the Commission, or to such other entity the Commission deems appropriate.

"(E) The Commission, the Securities and Exchange Commission and the Board of Governors of the Federal Reserve System shall enter into a memorandum of understanding by which the information reported to the Commission pursuant to subparagraph (D) with regard to excluded commodities or entities for which the Securities Exchange Commission or the Board of Governors of the Federal Reserve System serve as the primary regulator may be provided to the other agencies.

"(g) SPOT AND FORWARD EXCLUSION.—The settlement and clearing requirements of section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), 2(h)(3)(C), or 4(c)(1) shall not apply to an agreement, contract, or transaction of any cash commodity for immediate or deferred shipment or delivery, as defined by the Commission.".

(c) ADDITIONAL REQUIREMENTS APPLICABLE TO APPLICANTS FOR REGISTRATION AS A DERIVATIVE CLEARING ORGANIZATION.—Section 5b(c)(2) of such Act (7 U.S.C. 7a-1(c)(2)) is amended by adding at the end the following:

"(O) DISCLOSURE OF GENERAL INFORMATION.—The applicant shall disclose publicly and to the Commission information concerning—

"(i) the terms and conditions of contracts, agreements, and transactions cleared and settled by the applicant;

"(ii) the conventions, mechanisms, and practices applicable to the contracts, agreements, and transactions;

"(iii) the margin-setting methodology and the size and composition of the financial resource package of the applicant; and

"(iv) other information relevant to participation in the settlement and clearing activities of the applicant.

"(P) DAILY PUBLICATION OF TRADING INFORMATION.—The applicant shall make public daily information on settlement prices, volume, and open interest for contracts settled or cleared pursuant to the requirements of section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), 2(h)(3)(C) or 4(c)(1) of this Act by the applicant if the Commission determines that the contracts perform a significant price discovery function for transactions in the cash market for the commodity underlying the contracts.

"(Q) FITNESS STANDARDS.—The applicant shall establish and enforce appropriate fitness standards for directors, members of any disciplinary committee, and members of the applicant, and any other persons with direct access to the settlement or clearing activities of the applicant, including any parties affiliated with any of the persons described in this subparagraph.".

(d) AMENDMENTS.—

(1) Section 409 of the Federal Deposit Insurance Corporation Improvement Act of 1991 (12 U.S.C. 4422) is amended by adding at the end the following:

"(c) CLEARING REQUIREMENT.—A multilateral clearing organization described in subsections (a) or (b) of this section shall comply with requirements similar to the requirements of sections 5b and 5c of the Commodity Exchange Act.".

(2) Section 407 of the Legal Certainty for Bank Products Act of 2000 (7 U.S.C. 27e) is amended by inserting "and the settlement and clearing requirements of sections 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), 2(h)(3)(C), and 4(c)(1) of such Act" after "the clearing of covered swap agreements".

(e) EFFECTIVE DATE.—The amendments made by this section shall take effect 150 days after the date of the enactment of this Act.

(f) TRANSITION RULE.—Any agreement, contract, or transaction entered into before the date of the enactment of this Act or within 150 days after such date of enactment, in reliance on subsection (d), (g), (h)(1), or (h)(3) of section 2 of the Commodity Exchange Act or any other exemption issued by the Commission Futures Trading Commission by rule, regulation, or order shall, within 90 days after such date of enactment, unless settled and cleared through an entity registered with the Commission as a derivatives clearing organization or another clearing entity pursuant to section 4(f) of such Act, be reported to the Commission in a manner designated by the Commission, or to such other entity as the Commission deems appropriate.

SEC. 355. LIMITATION ON ELIGIBILITY TO PURCHASE A CREDIT DEFAULT SWAP.

(a) IN GENERAL.—Section 4c of the Commodity Exchange Act (7 U.S.C. 6c) is amended by adding at the end the following:

"(h) LIMITATION ON ELIGIBILITY TO PURCHASE A CREDIT DEFAULT SWAP.—It shall be unlawful for any person to enter into a credit default swap unless the person—

"(1) owns a credit instrument which is insured by the credit default swap;

"(2) would experience financial loss if an event that is the subject of the credit default swap occurs with respect to the credit instrument; and

"(3) meets such minimum capital adequacy standards as may be established by the Commission, in consultation with the Board of Governors of the Federal Reserve System, or such more stringent minimum capital adequacy standards as may be established by or under the law of any State in which the swap is originated or entered into, or in which possession of the contract involved takes place.".

(b) ELIMINATION OF PREEMPTION OF STATE BUCKETING LAWS REGARDING NAKED CREDIT DEFAULT SWAPS.—Section 12(e)(2)(B) of such Act (7 U.S.C. 16(e)(2)(B)) is amended by inserting "(other than a credit default swap in which the purchaser of the swap would not experience financial loss if an event that is the subject of the swap occurred)" before "that is excluded".

(c) DEFINITION OF CREDIT DEFAULT SWAP.—Section 1a of such Act (7 U.S.C. 1a), as amended by section 351(a) of this Act, is amended by adding at the end the following:

"(37) CREDIT DEFAULT SWAP.—The term 'credit default swap' means a contract which insures a party to the contract against the risk that an entity may experience a loss of value as a result of an event specified in the contract, such as a default or credit downgrade. A credit default swap that is traded on or cleared by a registered entity shall be excluded from the definition of a security as defined in this Act and in section 2(a)(1) of the Securities Act of 1933 or section 3(a)(10) of the Securities Exchange Act of 1934, except it shall be deemed a security solely for purpose of enforcing prohibitions against insider trading in sections 10 and 16 of the Securities Exchange Act of 1934.".

(d) EFFECTIVE DATE.—The amendments made by this section shall be effective for credit default swaps (as defined in section 1a(37) of the Commodity Exchange Act) entered into after 60 days after the date of the enactment of this section.

SEC. 356. TRANSACTION FEES.

(a) IN GENERAL.—Section 12 of the Commodity Exchange Act (7 U.S.C. 16) is amended by redesignating subsections (e), (f), and (g) as subsections (f), (g), and (h), respectively, and inserting after subsection (d) the following:

"(e) CLEARING FEES.—

"(1) IN GENERAL.—The Commission shall, in accordance with this subsection, charge and collect from each registered clearing organization, and each such organization shall pay to the Commission, transaction fees at a rate calculated to recover the costs to the Federal Government of the supervision and regulation of futures markets, except those directly related to enforcement.

"(2) FEES ASSESSED PER SIDE OF CLEARED CONTRACTS.—

"(A) IN GENERAL.—The Commission shall determine the fee rate referred to in paragraph (1), and shall apply the fee rate per side of any transaction cleared.

"(B) AUTHORITY TO DELEGATE.— The Commission may determine the procedures by which the fee rate is to be applied on the transactions subject

to the fee, or delegate the authority to make the determination to any appropriate derivatives clearing organization.

"(3) EXEMPTIONS.—The Commission may not impose a fee under paragraph (1) on—

"(A) a class of contracts or transactions if the Commission finds that it is in the public interest to exempt the class from the fee; or

"(B) a contract or transaction cleared by a registered derivatives clearing organization that is—

"(i) subject to fees under section 31 of the Securities Exchange Act of 1934; or

"(ii) a security as defined in the Securities Act of 1933 or the Securities Exchange Act of 1934.

"(4) DATES FOR PAYMENT OF FEES.—The fees imposed under paragraph (1) shall be paid on or before—

"(A) March 15 of each year, with respect to transactions occurring on or after the preceding September 1 and on or before the preceding December 31; and

"(B) September 15 of each year, with respect to transactions occurring on or after the preceding January 1 and on or before the preceding August 31.

"(5) ANNUAL ADJUSTMENT OF FEE RATES.—

"(A) IN GENERAL.—Not later than April 30 of each fiscal year , the Commission shall, by order, adjust each fee rate determined under paragraph (2) for the fiscal year to a uniform adjusted rate that, when applied to the estimated aggregate number of cleared sides of transactions for the fiscal year, is reasonably likely to produce aggregate fee receipts under this subsection for the fiscal year equal to the target offsetting receipt amount for the fiscal year.

"(B) DEFINITIONS.—In subparagraph (A):

"(i) ESTIMATED AGGREGATE NUMBER OF CLEARED SIDES OF TRANSACTIONS.—The term 'estimated aggregate number of cleared sides of transactions' means, with respect to a fiscal year, the aggregate number of cleared sides of transactions to be cleared by registered derivatives clearing organizations during the fiscal year, as estimated by the Commission, after consultation with the Office of Management and Budget, using the methodology required for making projections pursuant to section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985.

"(ii) TARGET OFFSETTING RECEIPT AMOUNT.—The term 'target offsetting receipt amount' means, with respect to a fiscal year, the total level of Commission budget authority for all non-enforcement activities of the Commission, as contained in the regular appropriations Acts for the fiscal year.

"(C) NO JUDICIAL REVIEW.—An adjusted fee rate prescribed under subparagraph (A) shall not be subject to judicial review.

"(6) PUBLICATION.—Not later than April 30 of each fiscal year, the Commission shall cause to be published in the Federal Register notices of the fee rates applicable under this subsection for the succeeding fiscal year, and any estimate or projection on which the fee rates are based.

"(7) INAPPLICABILITY OF CERTAIN PROCEDURAL RULES.—Section 553 of title 5, United States Code, shall not apply with respect to any exercise of authority under this subsection.

"(8) ESTABLISHMENT OF FUTURES AND OPTIONS TRANSACTION FEE ACCOUNT; DEPOSIT OF FEES.—There is established in the Treasury of the United States an account which shall be known as the 'Futures and Options Transaction Fee Account'. All fees collected under this subsection for a fiscal year shall be deposited in the account. Amounts in the account are authorized to be appropriated to fund the expenditures of the Commission.".

(b) EFFECTIVE DATE.—The amendments made by subsection (a) shall apply to fiscal years beginning 30 or more days after the date of the enactment of this Act.

(c) TRANSITION RULE.—If this section becomes law after March 31 and before September 1 of a fiscal year, then paragraphs (5)(A) and (6) of section 12(e) of the Commodity Exchange Act shall be applied, in the case of the 1st fiscal year beginning after the date of the enactment of this Act, by substituting "August 31" for "April 30".

SEC. 357. NO EFFECT ON AUTHORITY OF THE FEDERAL TRADE COMMISSION.

Nothing in this subtitle shall be interpreted to affect or diminish the jurisdiction or authority of the Federal Trade Commission with respect to its authorities under the Federal Trade Commission Act (15 U.S.C. 41 et seq.) or the Energy Independ-

ence and Security Act of 2007 (Public Law 110–140) to obtain information, to carry out enforcement activities or otherwise carry out the responsibilities of the Federal Trade Commission.

SEC. 358. REGULATION OF CARBON DERIVATIVES MARKETS.

(a) DEFAULT RULE.—Section 2 of the Commodity Exchange Act (7 U.S.C. 2), as amended by section 352 of this Act, is amended by adding at the end the following:

"(k) The Commission shall have jurisdiction over the establishment, operations, and oversight of markets for regulated allowance derivatives (as defined in section 401 of the Federal Power Act (16 U.S.C. 791a and following)), and shall provide for the establishment, operation, and oversight of the markets in accordance with the same regulations that apply under this Act to included energy transactions.".

(b) PRESIDENTIAL DETERMINATIONS.—To the extent that the President delegates the authority to promulgate regulations for the establishment, operation, and oversight of all markets for regulated allowance derivatives to a Federal agency other than the Commodity Futures Trading Commission pursuant to section 401 of the Federal Power Act, such determination shall supersede subsection (a). To the extent that the President determines that regulations promulgated pursuant to section 401(c)(2) of the Federal Power Act would provide for more stringent and effective market oversight, such regulations shall supersede subsection (a). Nothing in this section shall be construed to affect the operation of the default rules established in section 401(c)(4) of the Federal Power Act.

SEC. 359. CEASE-AND-DESIST AUTHORITY.

(a) NATURAL GAS ACT.—Section 20 of the Natural Gas Act (15 U.S.C. 717s) is amended by adding the following at the end:

"(e) CEASE-AND-DESIST PROCEEDINGS; TEMPORARY ORDERS; AUTHORITY OF THE COMMISSION.—

"(1) IN GENERAL.—If the Commission finds, after notice and opportunity for hearing, that any entity may be violating, may have violated, or may be about to violate any provision of this Act, or any rule, regulation, restriction, condition, or order made or imposed by the Commission under the authority of this Act, the Commission may publish its findings and issue an order requiring such entity, and any other entity that is, was, or would be a cause of the violation, due to an act or omission the entity knew or should have known would contribute to such violation, to cease and desist from committing or causing such violation and any future violation of the same provision, rule, or regulation. Such order may, in addition to requiring an entity to cease and desist from committing or causing a violation, require such entity to comply, to provide an accounting and disgorgement, or to take steps to effect compliance, with such provision, rule, or regulation, upon such terms and conditions and within such time as the Commission may specify in such order. Any such order may, as the Commission deems appropriate, require future compliance or steps to effect future compliance, either permanently or for such period of time as the Commission may specify.

"(2) TIMING OF ENTRY.—An order issued under this subsection shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing prior to entry would be impracticable or contrary to the public interest.

"(f) HEARING.—The notice instituting proceedings pursuant to subsection (e) shall fix a hearing date not earlier than 30 days nor later than 60 days after service of the notice unless an earlier or a later date is set by the Commission with the consent of any respondent so served.

"(g) TEMPORARY ORDER.—Whenever the Commission determines that-—

"(1) a respondent may take actions to dissipate or convert assets prior to the completion of the proceedings referred to in subsection (e), and such assets would be necessary to comply with or otherwise satisfy a final enforcement order of the Commission pursuant to alleged violations or threatened violations specified in the notice instituting proceedings; or

"(2) a respondent is engaged in actual or threatened violations of this Act or a Commission rule, regulation, restriction or order referred to in subsection (e),

the Commission may issue a temporary order requiring the respondent to take such action to prevent dissipation or conversion of assets, significant harm to energy consumers, or substantial harm to the public interest, frustration of the Commission's ability to conduct the proceedings, or frustration of the Commission's ability to redress said violation at the conclusion of the proceedings, as the Commission deems appropriate pending completion of such proceedings.

"(h) REVIEW OF TEMPORARY ORDERS.—

"(1) COMMISSION REVIEW.—At any time after the respondent has been served with a temporary cease-and-desist order pursuant to subsection (g), the re-

spondent may apply to the Commission to have the order set aside, limited, or suspended. If the respondent has been served with a temporary cease-and-desist order entered without a prior Commission hearing, the respondent may, within 10 days after the date on which the order was served, request a hearing on such application and the Commission shall hold a hearing and render a decision on such application at the earliest possible time.

"(2) JUDICIAL REVIEW.—Within—

"(A) 10 days after the date the respondent was served with a temporary cease-and-desist order entered with a prior Commission hearing; or

"(B) 10 days after the Commission renders a decision on an application and hearing under paragraph (1),

with respect to any temporary cease-and-desist order entered without a prior Commission hearing, the respondent may apply to the United States district court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order, and the court shall have jurisdiction to enter such an order. A respondent served with a temporary cease-and-desist order entered without a prior Commission hearing may not apply to the court except after hearing and decision by the Commission on the respondent's application under paragraph (1) of this subsection.

"(3) NO AUTOMATIC STAY OF TEMPORARY ORDER.—The commencement of proceedings under paragraph (2) of this subsection shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.

"(4) EXCLUSIVE REVIEW.—Sections 19(d) and 24 shall not apply to a temporary order entered pursuant to this section.

"(i) IMPLEMENTATION.—The Commission is authorized to adopt rules, regulations, and orders as it deems appropriate to implement this section.".

(c) NATURAL GAS POLICY ACT OF 1978.—Section 504 of the Natural Gas Policy Act of 1978 (15 U.S.C. 3414) is amended by adding the following at the end:

"(d) CEASE-AND-DESIST PROCEEDINGS; TEMPORARY ORDERS; AUTHORITY OF THE COMMISSION.—

"(1) IN GENERAL.—If the Commission finds, after notice and opportunity for hearing, that any entity may be violating, may have violated, or may be about to violate any provision of this Act, or any rule, regulation, restriction, condition, or order made or imposed by the Commission under the authority of this Act, the Commission may publish its findings and issue an order requiring such entity, and any other entity that is, was, or would be a cause of the violation, due to an act or omission the entity knew or should have known would contribute to such violation, to cease and desist from committing or causing such violation and any future violation of the same provision, rule, or regulation. Such order may, in addition to requiring an entity to cease and desist from committing or causing a violation, require such entity to comply, to provide an accounting and disgorgement, or to take steps to effect compliance, with such provision, rule, or regulation, upon such terms and conditions and within such time as the Commission may specify in such order. Any such order may, as the Commission deems appropriate, require future compliance or steps to effect future compliance, either permanently or for such period of time as the Commission may specify.

"(2) TIMING OF ENTRY.—An order issued under this subsection shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing prior to entry would be impracticable or contrary to the public interest.

"(3) HEARING.—The notice instituting proceedings pursuant to paragraph (1) shall fix a hearing date not earlier than 30 days nor later than 60 days after service of the notice unless an earlier or a later date is set by the Commission with the consent of any respondent so served.

"(4) TEMPORARY ORDER.—Whenever the Commission determines that—

"(A) a respondent may take actions to dissipate or convert assets prior to the completion of the proceedings referred to in paragraph (1) and such assets would be necessary to comply with or otherwise satisfy a final enforcement order of the Commission pursuant to alleged violations or threatened violations specified in the notice instituting proceedings; or

"(B) a respondent is engaged in actual or threatened violations of this Act or a Commission rule, regulation, restriction or order referred to in paragraph (1),

the Commission may issue a temporary order requiring the respondent to take such action to prevent dissipation or conversion of assets, significant harm to energy consumers, or substantial harm to the public interest, frustration of the Commission's ability to conduct the proceedings, or frustration of the Commis-

sion's ability to redress said violation at the conclusion of the proceedings, as the Commission deems appropriate pending completion of such proceedings.

"(5) REVIEW OF TEMPORARY ORDERS.—

"(A) COMMISSION REVIEW.—At any time after the respondent has been served with a temporary cease-and-desist order pursuant to paragraph (4), the respondent may apply to the Commission to have the order set aside, limited, or suspended. If the respondent has been served with a temporary cease-and-desist order entered without a prior Commission hearing, the respondent may, within 10 days after the date on which the order was served, request a hearing on such application and the Commission shall hold a hearing and render a decision on such application at the earliest possible time.

"(B) JUDICIAL REVIEW.—Within—

"(i) 10 days after the date the respondent was served with a temporary cease-and-desist order entered with a prior Commission hearing; or

"(ii) 10 days after the Commission renders a decision on an application and hearing under subparagraph (A), with respect to any temporary cease-and-desist order entered without a prior Commission hearing, the respondent may apply to the United States district court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order, and the court shall have jurisdiction to enter such an order. A respondent served with a temporary cease-and-desist order entered without a prior Commission hearing may not apply to the court except after hearing and decision by the Commission on the respondent's application under paragraph (1) of this subsection.

"(C) NO AUTOMATIC STAY OF TEMPORARY ORDER.—The commencement of proceedings under subparagraph (B) of this paragraph shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.

"(6) IMPLEMENTATION.—The Commission is authorized to adopt rules, regulations, and orders as it deems appropriate to implement this subsection.".

TITLE IV—TRANSITIONING TO A CLEAN ENERGY ECONOMY

Subtitle A—Ensuring Real Reductions in Industrial Emissions

SEC. 401. ENSURING REAL REDUCTIONS IN INDUSTRIAL EMISSIONS.

Title VII of the Clean Air Act is amended by inserting after part E the following new part:

"PART F—ENSURING REAL REDUCTIONS IN INDUSTRIAL EMISSIONS

"SEC. 761. PURPOSES.

"(a) PURPOSE OF PART.—The purposes of this part are—

"(1) to promote a strong global effort to significantly reduce greenhouse gas emissions, and, through this global effort, stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous anthropogenic interference with the climate system; and

"(2) to prevent an increase in greenhouse gas emissions in countries other than the United States as a result of direct and indirect compliance costs incurred under this title.

"(b) PURPOSES OF SUBPART 1.—The purposes of subpart 1 are additionally—

"(1) to rebate the owners and operators of entities in domestic eligible industrial sectors for their greenhouse gas emission costs incurred under this title, but not for costs associated with other related or unrelated market dynamics;

"(2) to design such rebates in a way that will prevent carbon leakage while also rewarding innovation and facility-level investments in energy efficiency performance improvements; and

"(3) to eliminate or reduce distribution of emission allowances under this part when such distribution is no longer necessary to prevent carbon leakage from eligible industrial sectors.

"SEC. 762. INTERNATIONAL NEGOTIATIONS.

"(a) FINDING.—Congress finds that the purposes of this part, as set forth in section 761, can be most effectively addressed and achieved through agreements negotiated between the United States and foreign countries.

"(b) STATEMENT OF POLICY.—It is the policy of the United States to work proactively under the United Nations Framework Convention on Climate Change, and in other appropriate forums, to establish binding agreements, including sectoral agreements, committing all major greenhouse gas-emitting nations to contribute equitably to the reduction of global greenhouse gas emissions.

"(c) NOTIFICATION OF FOREIGN COUNTRIES.—Not later than January 1, 2020, the President shall notify foreign countries that an International Reserve Allowance Program, as described in subpart 2, may apply to primary products produced in a foreign country by a sector for which the President has made a determination described in section 767(c).

"SEC. 763. DEFINITIONS.

"In this part:

"(1) CARBON LEAKAGE.—The term 'carbon leakage' means any substantial increase (as determined by the Administrator) in greenhouse gas emissions by industrial entities located in other countries if such increase is caused by an incremental cost of production increase in the United States resulting from the implementation of this title.

"(2) ELIGIBLE INDUSTRIAL SECTOR.—The term 'eligible industrial sector' means an industrial sector determined by the Administrator under section 764(b) to be eligible to receive emission allowance rebates under subpart 1.

"(3) INDUSTRIAL SECTOR.—The term 'industrial sector' means any sector that is in the manufacturing sector (as defined in NAICS codes 31, 32, and 33).

"(4) NAICS.—The term 'NAICS' means the North American Industrial Classification System of 2002.

"(5) OUTPUT.—The term 'output' means the total tonnage or other standard unit of production (as determined by the Administrator) produced by an entity in an industrial sector. The output of the cement sector is hydraulic cement, and not clinker.

"(6) PRIMARY PRODUCT.—The term 'primary product' means a product manufactured by an eligible industrial sector that is—

"(A) iron, steel, steel mill products (including pipe and tube), aluminum, cement, glass (including flat, container, and specialty glass and fiberglass), pulp, paper, chemicals, or industrial ceramics; or

"(B) any other manufactured product that is sold in bulk for purposes of further manufacture or inclusion in a finished product.

"Subpart 1—Emission Allowance Rebate Program

"SEC. 764. ELIGIBLE INDUSTRIAL SECTORS.

"(a) LIST.—

"(1) INITIAL LIST.—Not later than June 30, 2011, the Administrator shall publish in the Federal Register a list of eligible industrial sectors pursuant to subsection (b). Such list shall include the amount of the emission allowance rebate per unit of production that shall be provided to entities in each eligible industrial sector in the following two calendar years pursuant to section 765.

"(2) SUBSEQUENT LISTS.—Not later than February 1, 2013, and every four years thereafter, the Administrator shall publish in the Federal Register an updated version of the list published under paragraph (1).

"(b) ELIGIBLE INDUSTRIAL SECTORS.—

"(1) IN GENERAL.—Not later than June 30, 2011, the Administrator shall promulgate a rule designating, based on the criteria under paragraph (2), the industrial sectors eligible for emission allowance rebates under this subpart.

"(2) PRESUMPTIVELY ELIGIBLE INDUSTRIAL SECTORS.—

"(A) ELIGIBILITY CRITERIA.—An owner or operator of an entity shall be eligible to receive emission allowance rebates under this subpart if such entity is in an industrial sector that is included in a six-digit classification of the NAICS that meets the criteria in both clauses (i) and (ii), or the criteria in clause (iii).

"(i) ENERGY OR GREENHOUSE GAS INTENSITY.—As determined by the Administrator, the industrial sector had—

"(I) an energy intensity of at least 5 percent, calculated by dividing the cost of purchased electricity and fuel costs of the sector by the value of the shipments of the sector, based on data described in subparagraph (E); or

"(II) a greenhouse gas intensity of at least 5 percent, calculated by dividing—

"(aa) the number 20 multiplied by the number of tons of carbon dioxide equivalent greenhouse gas emissions (including direct emissions from fuel combustion, process emissions, and indirect emissions from the generation of electricity used to produce the output of the sector) of the sector based on data described in subparagraph (E); by

"(bb) the value of the shipments of the sector, based on data described in subparagraph (E).

"(ii) TRADE INTENSITY.—As determined by the Administrator, the industrial sector had a trade intensity of at least 15 percent, calculated by dividing the value of the total imports and exports of such sector by the value of the shipments plus the value of imports of such sector, based on data described in subparagraph (E).

"(iii) VERY HIGH ENERGY OR GREENHOUSE GAS INTENSITY.—As determined by the Administrator, the industrial sector had an energy or greenhouse gas intensity, as calculated under clause (i)(I) or (II), of at least 20 percent.

"(B) IRON AND STEEL SECTOR.—For purposes of this subpart, in carrying out this section and section 765, the Administrator shall consider as in different industrial sectors—

"(i) entities using integrated iron and steelmaking technologies (including coke ovens, blast furnaces, and other iron-making technologies); and

"(ii) entities using electric arc furnace technologies.

"(C) METAL AND PHOSPHATE PRODUCTION CLASSIFIED UNDER MORE THAN ONE NAICS CODE.—For purposes of this subpart, in carrying out this section and section 765, the Administrator shall—

"(i) aggregate data for the beneficiation or other processing of iron and copper ores and phosphate with subsequent steps in the process of metal and phosphate manufacturing regardless of the NAICS code under which such activity is classified; and

"(ii) aggregate data for the manufacturing of steel with the manufacturing of steel pipe and tube made from purchased steel in a nonintegrated process.

"(D) EXCLUSION.—The petroleum refining sector shall not be an eligible industrial sector.

"(E) DATA SOURCES.—

"(i) ELECTRICITY AND FUEL COSTS, VALUE OF SHIPMENTS.—The Administrator shall determine electricity and fuel costs and the value of shipments under this subsection from data from the United States Census of Mineral Industries and the United States Census Annual Survey of Manufacturers. The Administrator shall take the average of data from as many of the years of 2004, 2005, and 2006 for which such data are available. If such data are unavailable, the Administrator shall make a determination based upon 2002 or 2006 data from the most detailed industrial classification level of Energy Information Agency's Manufacturing Energy Consumption Survey (using 2006 data if it is available) and the 2002 or 2007 Economic Census of the United States (using 2007 data if it is available). If data from the Manufacturing Energy Consumption Survey are unavailable for any sector at the six-digit classification level in the NAICS, then the Administrator may extrapolate the information necessary to determine the eligibility of a sector under this paragraph from available Manufacturing Energy Consumption Survey data pertaining to a broader industrial category classified in the NAICS. Fuel cost data shall not include the cost of fuel used as feedstock by an industrial sector.

"(ii) IMPORTS AND EXPORTS.—The Administrator shall base the value of imports and exports under this subsection on United States International Trade Commission data. The Administrator shall take the average of data from as many of the years of 2004, 2005, and 2006 for which such data are available.

"(iii) PERCENTAGES.—The Administrator shall round the energy intensity, greenhouse gas intensity, and trade intensity percentages under subparagraph (A) to the nearest whole number.

"(iv) GREENHOUSE GAS EMISSION CALCULATIONS.—When calculating the tons of carbon dioxide equivalent greenhouse gas emissions for each sector under subparagraph (A)(i)(II)(aa), the Administrator—

"(I) shall use the best available data from as many of the years 2004, 2005, and 2006 for which such data is available; and

"(II) may, to the extent necessary with respect to a sector, use economic and engineering models and the best available information on technology performance levels for such sector.

"(3) ADMINISTRATIVE DETERMINATION OF ADDITIONAL ELIGIBLE INDUSTRIAL SECTORS.—

"(A) INDIVIDUAL SHOWING PETITION.—

"(i) PETITION.—The owner or operator of an entity in an industrial sector may petition the Administrator to designate as eligible industrial sectors under this subpart an entity or a group of entities that—

"(I) represent a subsector of a six-digit section of the NAICS code; and

"(II) meet the eligibility criteria in both clauses (i) and (ii) of paragraph (2)(A), or the eligibility criteria in clause (iii) of paragraph (2)(A).

"(ii) DATA.—In making a determination under this subparagraph, the Administrator shall consider data submitted by the petitioner that is specific to the entity, data solicited by the Administrator from other entities in the subsector, if such other entities exist, and data specified in paragraph (2)(E).

"(iii) BASIS OF SUBSECTOR DETERMINATION.—The Administrator shall determine an entity or group of entities to be a subsector of a six-digit section of the NAICS code based only upon the products manufactured and not the industrial process by which the products are manufactured, except that the Administrator may determine an entity or group of entities that manufacture a product from a virgin material to be a separate subsector from another entity or group of entities that manufacture the same product from recycled material.

"(iv) FINAL ACTION.—The Administrator shall take final action on such petition no later than 6 months after the petition is received by the Administrator.

"(B) UPDATED TRADE INTENSITY DATA.—The Administrator shall designate as eligible to receive emission allowance rebates under this subpart an industrial sector that—

"(i) met the energy or greenhouse gas intensity criteria in paragraph (2)(A)(i) as of the date of promulgation of the rule under paragraph (1); and

"(ii) meets the trade intensity criteria in paragraph (2)(A)(ii), using data from any year after 2006.

"(C) USE OF MOST RECENT DATA.—In determining whether to designate a sector or subsector as an eligible industrial sector under this paragraph, the Administrator shall use the most recent data available from the sources described in paragraph (2)(E), rather than the data from the years specified in paragraph (2)(E), to determine the trade intensity of such sector or subsector, but only for determining such trade intensity.

"SEC. 765. DISTRIBUTION OF EMISSION ALLOWANCE REBATES.

"(a) DISTRIBUTION SCHEDULE.—

"(1) IN GENERAL.—For each vintage year, the Administrator shall distribute allowances pursuant to this section no later than October 31 of the preceding calendar year. The Administrator shall make such annual distributions to the owners and operators of each entity in an eligible industrial sector in the amount of emission allowances calculated under subsection (b), except that—

"(A) for vintage years 2012 and 2013, the distribution for a covered entity shall be the entity's indirect carbon factor as calculated under subsection (b)(3); and

"(B) for vintage year 2026 and thereafter, the distribution shall be the amount calculated under subsection (b) multiplied by, except as modified by the President pursuant to section 767(c)(3)(A) for a sector—

"(i) 90 percent for vintage year 2026;

"(ii) 80 percent for vintage year 2027;

"(iii) 70 percent for vintage year 2028;

"(iv) 60 percent for vintage year 2029;
"(v) 50 percent for vintage year 2030;
"(vi) 40 percent for vintage year 2031;
"(vii) 30 percent for vintage year 2032;
"(viii) 20 percent for vintage year 2033;
"(ix) 10 percent for vintage year 2034; and
"(x) 0 percent for vintage year 2035 and thereafter.

"(2) RESUMPTION OF REDUCTION.—If the President has modified the percentage stated in paragraph (1)(B) under section 767(c)(3)(A), and the President subsequently makes a determination under section 767(b) for an eligible industrial sector that more than 70 percent of global output for that sector is produced or manufactured in countries that have met at least one of the criteria in that subsection, then the reduction schedule set forth in paragraph (1)(B) of this subsection shall begin in the next vintage year, with the percentage reduction based on the amount of the distribution of emission allowances under this section in the previous year.

"(3) NEWLY ELIGIBLE SECTORS.—In addition to receiving a distribution of emission allowances under this section in the first distribution occurring after an industrial sector is designated as eligible under section 764(b)(3), the owner or operator of an entity in that eligible industrial sector may receive a prorated share of any emission allowances made available for distribution under this section that were not distributed for the year in which the petition for eligibility was granted under section 764(b)(3)(A).

"(b) CALCULATION OF DIRECT AND INDIRECT CARBON FACTORS.—

"(1) IN GENERAL.—

"(A) COVERED ENTITIES.—Except as provided in subsection (a), for covered entities that are in eligible industrial sectors, the amount of emission allowance rebates shall be based on the sum of the covered entity's direct and indirect carbon factors.

"(B) OTHER ELIGIBLE ENTITIES.—For entities that are in eligible industrial sectors but are not covered entities, the amount of emission allowance rebates shall be based on the entity's indirect carbon factor.

"(C) NEW ENTITIES.—Not later than 2 years after the date of enactment of this title, the Administrator shall issue regulations governing the distribution of emission allowance rebates for the first and second years of operation of a new entity in an eligible industrial sector. These regulations shall provide for—

"(i) the distribution of emission allowance rebates to such entities based on comparable entities in the same sector; and

"(ii) an adjustment in the third and fourth years of operation to reconcile the total amount of emission allowance rebates received during the first and second years of operation to the amount the entity would have received during the first and second years of operation had the appropriate data been available.

"(2) DIRECT CARBON FACTOR.—The direct carbon factor for a covered entity for a vintage year is the product of—

"(A) the average output of the covered entity for the two years preceding the year of the distribution; and

"(B) the most recent calculation of the average direct greenhouse gas emissions (expressed in tons of carbon dioxide equivalent) per unit of output for all covered entities in the sector, as determined by the Administrator under paragraph (4).

"(3) INDIRECT CARBON FACTOR.—

"(A) IN GENERAL.—The indirect carbon factor for an entity for a vintage year is the product obtained by multiplying the average output of the entity for the two years preceding the years of the distribution by both the electricity emissions intensity factor determined pursuant to subparagraph (B) and the electricity efficiency factor determined pursuant to subparagraph (C) for the year concerned.

"(B) ELECTRICITY EMISSIONS INTENSITY FACTOR.—Each person selling electricity to the owner or operator of an entity in any sector designated as an eligible industrial sector under section 764(b) shall provide the owner or operator of the entity and the Administrator, on an annual basis, the electricity emissions intensity factor for the entity. The electricity emissions intensity factor for the entity, expressed in tons of carbon dioxide equivalents per kilowatt hour, is determined by dividing—

"(i) the annual sum of the hourly product of—

"(I) the electricity purchased by the entity from that person in each hour (expressed in kilowatt hours), multiplied by

"(II) the marginal or weighted average tons of carbon dioxide equivalent per kilowatt hour that the person selling the electricity charges to the entity, taking into account the entity's retail rate arrangements, by

"(ii) the total kilowatt hours of electricity purchased by the entity from that person during that year.

"(C) ELECTRICITY EFFICIENCY FACTOR.—The electricity efficiency factor is the average amount of electricity (in kilowatt hours) used per unit of output for all entities in the relevant sector, as determined by the Administrator based on the best available data, including data provided under paragraph (6).

"(D) INDIRECT CARBON FACTOR REDUCTION.—If an electricity provider received a free allocation of emission allowances pursuant to section 782(a), the Administrator shall adjust the indirect carbon factor to avoid rebates to the eligible entity for costs that the Administrator determines were not incurred by the industrial entity because the allowances were freely allocated to the eligible entity's electricity provider and used for the benefit of industrial consumers.

"(4) GREENHOUSE GAS INTENSITY CALCULATIONS.—The Administrator shall calculate the average direct greenhouse gas emissions (expressed in tons of carbon dioxide equivalent) per unit of output for all covered entities in each eligible industrial sector every four years using an average of the two most recent years of the best available data.

"(5) ENSURING EFFICIENCY IMPROVEMENTS.—When making greenhouse gas calculations, the Administrator shall—

"(A) limit the average direct greenhouse gas emissions per unit of output, calculated under paragraph (4), for any eligible industrial sector to an amount that is not greater than it was in any previous calculation under this subsection; and

"(B) limit the electricity emissions intensity factor, calculated under paragraph (3)(B) and resulting from a change in electricity supply, for any entity to an amount that is not greater than it was during any previous year.

"(6) DATA SOURCES.—For the purposes of this subsection—

"(A) the Administrator shall use data from the greenhouse gas registry, established under section 713, where it is available; and

"(B) each owner or operator of an entity in an eligible industrial sector and each department, agency, and instrumentality of the United States shall provide the Administrator with such information as the Administrator finds necessary to determine the direct carbon factor and the indirect carbon factor for each entity subject to this section.

"(c) TOTAL MAXIMUM DISTRIBUTION.—Notwithstanding subsections (a) and (b), the Administrator shall not distribute more allowances for any vintage year pursuant to this section than are allocated for use under this part pursuant to section 782 for that vintage year. For any vintage year for which the total emission allowance rebates calculated pursuant to this section exceed the number of allowances allocated pursuant to section 782, the Administrator shall reduce each entity's distribution on a pro rata basis so that the total distribution under this section equals the number of allowances allocated under section 782.

"Subpart 2—International Reserve Allowance Program

"SEC. 766. INTERNATIONAL RESERVE ALLOWANCE PROGRAM.

"(a) ESTABLISHMENT.—

"(1) IN GENERAL.—If the President takes an action described in section 767(c)(3)(B) with respect to a sector then, not later than 24 months after that determination, the Administrator shall issue regulations—

"(A) determining an appropriate price for and offering for sale to United States importers international reserve allowances;

"(B) requiring the submission of appropriate amounts of such allowances in conjunction with the importation into the United States of a primary product produced or manufactured by that sector;

"(C) exempting from the requirements of subparagraph (B) primary products produced in—

"(i) foreign countries that the United Nations has identified as among the least developed of developing countries; or

"(ii) foreign countries that the President has determined to be responsible for less than 0.5 percent of total global greenhouse gas emissions; and

"(D) prohibiting the introduction into interstate commerce of a primary product without submitting the required number of international reserve allowances in accordance with such regulations, unless the product was produced by a covered entity under this title, or by an entity that is or could be regulated under this title.

"(2) PURPOSE OF PROGRAM.—The Administrator shall establish the program under paragraph (1) in a manner that addresses, consistent with international agreements to which the United States is a party, the competitive imbalance in the costs of producing or manufacturing primary products in industrial sectors resulting from the difference between—

"(A) the direct and indirect costs of complying with this title; and

"(B) the direct and indirect costs, if any, of complying in other countries with greenhouse gas regulatory programs, requirements, export tariffs, or other measures adopted or imposed to reduce greenhouse gas emissions.

"(3) EMISSION ALLOWANCE REBATES.—The Administrator shall take into account the value of emission allowance rebates distributed under subpart 1 when making calculations under paragraph (2).

"(4) LIMITATION.—The International Reserve Allowance Program may not begin before January 1, 2025.

"(b) COVERED ENTITIES.—International reserve allowances may not be held by covered entities to comply with section 722.

"Subpart 3—Presidential Determination

"SEC. 767. PRESIDENTIAL REPORTS AND DETERMINATIONS.

"(a) REPORT.—Not later than January 1, 2018, the President shall submit a report to Congress on the effectiveness of the distribution of emission allowance rebates under subpart 1 in mitigating carbon leakage in industrial sectors. Such report shall also include—

"(1) recommendations on how to better achieve the purposes of this part, including an assessment of the feasibility and usefulness of an International Reserve Allowance Program; and

"(2) an assessment of the amount and duration of assistance, including distribution of free allowances, being provided to eligible industrial sectors in other developed countries to mitigate costs of compliance with domestic greenhouse gas reduction programs in such countries.

"(b) PRESIDENTIAL DETERMINATION.—Not later than June 30, 2022, and every four years thereafter, the President, in consultation with the Administrator and other appropriate agencies, shall determine, for each eligible industrial sector, whether more than 70 percent of global output for that sector is produced or manufactured in countries that have met at least one of the following criteria:

"(1) The country is a party to an international agreement to which the United States is a party that includes a nationally enforceable greenhouse gas emissions reduction commitment for that country that is at least as stringent as that of the United States.

"(2) The country is a party to a multilateral or bilateral emission reduction agreement for that sector to which the United States is a party.

"(3) The country has an annual energy or greenhouse gas intensity, as described in section 764(b)(2)(A)(i), for the sector that is equal to or less than the energy or greenhouse gas intensity for such sector in the United States in the most recent calendar year for which data are available.

"(4) The country has implemented policies, including sectoral caps, export tariffs, production fees, electricity generation regulations, or greenhouse gas emissions fees, that individually or collectively impose an incremental increase on the cost of production associated with greenhouse gas emissions from the sector that is at least 60 percent of the cost of complying with this title in the United States for such sector, averaged over a two-year period.

"(c) EFFECT OF PRESIDENTIAL DETERMINATION.—If the President makes a determination under subsection (b) with respect to an eligible industrial sector that 70 percent or less of the global output for the sector is produced or manufactured in countries that have met one or more of the criteria in subsection (b), then the President shall, not later than June 30, 2022, and every four years thereafter—

"(1) assess the extent to which the emission allowance rebates provided pursuant to subpart 1 have mitigated or addressed, or could mitigate or address, carbon leakage in that sector;

"(2) assess the extent to which an International Reserve Allowance Program has mitigated or addressed, or could mitigate or address, carbon leakage in that sector and the feasibility of establishing such a program; and

"(3) with respect to that sector—

"(A) modify the percentage by which direct and indirect carbon factors will be multiplied under section 765(a)(1)(B);

"(B) implement an International Reserve Allowance Program under section 766 for the products of the sector; or

"(C) take the actions in both subparagraph (A) and (B).

"(d) REPORT TO CONGRESS.—Not later than June 30, 2022, and every four years thereafter, the President shall transmit to the Congress a report providing notice of any determination made under subsection (b), explaining the reasons for such determination, and identifying the actions taken by the President under subsection (c).

"(e) LIMITATION.—The President may only implement an International Reserve Allowance Program for sectors producing primary products.

"(f) IRON AND STEEL SECTOR.—For the purposes of this subpart, the Administrator shall consider to be in the same industrial sector—

"(1) entities using integrated iron and steelmaking technologies (including coke ovens, blast furnaces, and other iron-making technologies); and

"(2) entities using electric arc furnace technologies.".

Subtitle B—Green Jobs and Worker Transition

PART 1—GREEN JOBS

SEC. 421. CLEAN ENERGY CURRICULUM DEVELOPMENT GRANTS.

(a) AUTHORIZATION.—The Secretary of Education is authorized to award grants, on a competitive basis, to eligible partnerships to develop programs of study (containing the information described in section 122(c)(1)(A) of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2342), that are focused on emerging careers and jobs in renewable energy, energy efficiency, and climate change mitigation. The Secretary of Education shall consult with the Secretary of Labor and the Secretary of Energy prior to the issuance of a solicitation for grant applications.

(b) ELIGIBLE PARTNERSHIPS.—For purposes of this section, an eligible partnership shall include—

(1) at least 1 local educational agency eligible for funding under section 131 of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2351) or an area career and technical education school or education service agency described in such section;

(2) at least 1 postsecondary institution eligible for funding under section 132 of such Act (20 U.S.C. 2352); and

(3) representatives of the community including business, labor organizations, and industry that have experience in clean energy.

(c) APPLICATION.—An eligible partnership seeking a grant under this section shall submit an application to the Secretary at such time and in such manner as the Secretary may require. Applications shall include—

(1) a description of the eligible partners and partnership, the roles and responsibilities of each partner, and a demonstration of each partner's capacity to support the program;

(2) a description of the career area or areas within the field of clean energy to be developed, the reason for the choice, and evidence of the labor market need to prepare students in that area;

(3) a description of the new or existing program of study and both secondary and postsecondary components;

(4) a description of the students to be served by the new program of study;

(5) a description of how the program of study funded by the grant will be replicable and disseminated to schools outside of the partnership, including urban and rural areas;

(6) a description of applied learning that will be incorporated into the program of study and how it will incorporate or reinforce academic learning;

(7) a description of how the program of study will be delivered;

(8) a description of how the program will provide accessibility to students, especially economically disadvantaged, low performing, and urban and rural students;

(9) a description of how the program will address placement of students in nontraditional fields as described in section 3(20) of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2302(20)); and

(10) a description of how the applicant proposes to consult or has consulted with a labor organization, labor management partnership, apprenticeship pro-

gram, or joint apprenticeship and training program that provides education and training in the field of study for which the applicant proposes to develop a curriculum.

(d) PRIORITY.—The Secretary shall give priority to applications that—

(1) use online learning or other innovative means to deliver the program of study to students, educators, and instructors outside of the partnership; and

(2) focus on low performing students and special populations as defined in section 3(29) of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2302(29)).

(e) PEER REVIEW.—The Secretary shall convene a peer review process to review applications for grants under this section and to make recommendations regarding the selection of grantees. Members of the peer review committee shall include—

(1) educators who have experience implementing curricula with comparable purposes; and

(2) business and industry experts in clean energy-related fields.

(f) USES OF FUNDS.—Grants awarded under this section shall be used for the development, implementation, and dissemination of programs of study (as described in section 122(c)(1)(A) of the Carl D. Perkins Career and Technical Education Act (20 U.S.C. 342(c)(1)(A))) in career areas related to clean energy, renewable energy, energy efficiency, and climate change mitigation.

SEC. 422. INCREASED FUNDING FOR ENERGY WORKER TRAINING PROGRAM.

Section 171(e)(8) of the Workforce Investment Act of 1998 (29 U.S.C. 2916(e)(8)) is amended by striking "$125,000,000" and inserting "$150,000,000".

PART 2—CLIMATE CHANGE WORKER ADJUSTMENT ASSISTANCE

SEC. 425. PETITIONS, ELIGIBILITY REQUIREMENTS, AND DETERMINATIONS.

(a) PETITIONS.—

(1) FILING.—A petition for certification of eligibility to apply for adjustment assistance for a group of workers under this part may be filed by any of the following:

(A) The group of workers.

(B) The certified or recognized union or other duly authorized representative of such workers.

(C) Employers of such workers, one-stop operators or one-stop partners (as defined in section 101 of the Workforce Investment Act of 1998 (29 U.S.C. 2801)), including State employment security agencies, or the State dislocated worker unit established under title I of such Act, on behalf of such workers.

The petition shall be filed simultaneously with the Secretary of Labor and with the Governor of the State in which such workers' employment site is located.

(2) ACTION BY GOVERNORS.—Upon receipt of a petition filed under paragraph (1), the Governor shall—

(A) ensure that rapid response activities and appropriate core and intensive services (as described in section 134 of the Workforce Investment Act of 1998 (29 U.S.C. 2864)) authorized under other Federal laws are made available to the workers covered by the petition to the extent authorized under such laws; and

(B) assist the Secretary in the review of the petition by verifying such information and providing such other assistance as the Secretary may request.

(3) ACTION BY THE SECRETARY.—Upon receipt of the petition, the Secretary shall promptly publish notice in the Federal Register and on the website of the Department of Labor that the Secretary has received the petition and initiated an investigation.

(4) HEARINGS.—If the petitioner, or any other person found by the Secretary to have a substantial interest in the proceedings, submits not later than 10 days after the date of the Secretary's publication under paragraph (3) a request for a hearing, the Secretary shall provide for a public hearing and afford such interested persons an opportunity to be present, to produce evidence, and to be heard.

(b) ELIGIBILITY.—

(1) IN GENERAL.—A group of workers shall be certified by the Secretary as eligible to apply for adjustment assistance under this part pursuant to a petition filed under subsection (a) if—

(A) the group of workers is employed in—

(i) energy producing and transforming industries;
(ii) industries dependent upon energy industries;
(iii) energy-intensive manufacturing industries;
(iv) consumer goods manufacturing; or
(v) other industries whose employment the Secretary determines has been adversely affected by any requirement of title VII of the Clean Air Act;

(B) the Secretary determines that a significant number or proportion of the workers in such workers' employment site have become totally or partially separated, or are threatened to become totally or partially separated from employment; and

(C) the sales, production, or delivery of goods or services have decreased as a result of any requirement of title VII of the Clean Air Act, including—

(i) the shift from reliance upon fossil fuels to other sources of energy, including renewable energy, that results in the closing of a facility or layoff of employees at a facility that mines, produces, processes, or utilizes fossil fuels to generate electricity;

(ii) a substantial increase in the cost of energy required for a manufacturing facility to produce items whose prices are competitive in the marketplace, to the extent the cost is not offset by allowance allocation to the facility pursuant to title VII of the Clean Air Act; or

(iii) other documented occurrences that the Secretary determines are indicators of an adverse impact on an industry described in subparagraph (A) as a result of any requirement of title VII of the Clean Air Act.

(2) WORKERS IN PUBLIC AGENCIES.—A group of workers in a public agency shall be certified by the Secretary as eligible to apply for climate change adjustment assistance pursuant to a petition filed if the Secretary determines that a significant number or proportion of the workers in the public agency have become totally or partially separated from employment, or are threatened to become totally or partially separated as a result of any requirement of title VII of the Clean Air Act.

(3) ADVERSELY AFFECTED SERVICE WORKERS.—A group of workers shall be certified as eligible to apply for climate change adjustment assistance pursuant to a petition filed if the Secretary determines that—

(A) a significant number or proportion of the service workers at an employment site where a group of workers has been certified by the Secretary as eligible to apply for adjustment assistance under this part pursuant to paragraph (1) have become totally or partially separated from employment, or are threatened to become totally or partially separated; and

(B) a loss of business in the firm providing service workers to an employment site is directly attributable to one or more of the documented occurrences listed in paragraph (1)(C).

(c) AUTHORITY TO INVESTIGATE AND COLLECT INFORMATION.—

(1) IN GENERAL.—The Secretary shall, in determining whether to certify a group of workers under subsection (d), obtain information the Secretary determines to be necessary to make the certification, through questionnaires and in such other manner as the Secretary determines appropriate from—

(A) the workers' employer;

(B) officials of certified or recognized unions or other duly authorized representatives of the group of workers; or

(C) one-stop operators or one-stop partners (as defined in section 101 of the Workforce Investment Act of 1998 (29 U.S.C. 2801)); or

(2) VERIFICATION OF INFORMATION.—The Secretary shall require an employer, union, or one-stop operator or partner to certify all information obtained under paragraph (1) from the employer, union, or one-stop operator or partner (as the case may be) on which the Secretary relies in making a determination under subsection (d), unless the Secretary has a reasonable basis for determining that such information is accurate and complete without being certified.

(3) PROTECTION OF CONFIDENTIAL INFORMATION.—The Secretary may not release information obtained under paragraph (1) that the Secretary considers to be confidential business information unless the employer submitting the confidential business information had notice, at the time of submission, that the information would be released by the Secretary, or the employer subsequently consents to the release of the information. Nothing in this paragraph shall be construed to prohibit the Secretary from providing such confidential business information to a court in camera or to another party under a protective order issued by a court.

(d) DETERMINATION BY THE SECRETARY OF LABOR.—

(1) IN GENERAL.—As soon as possible after the date on which a petition is filed under subsection (a), but in any event not later than 40 days after that date, the Secretary, in consultation with the Secretary of Energy and the Administrator, as necessary, shall determine whether the petitioning group meets the requirements of subsection (b) and shall issue a certification of eligibility to apply for assistance under this part covering workers in any group which meets such requirements. Each certification shall specify the date on which the total or partial separation began or threatened to begin. Upon reaching a determination on a petition, the Secretary shall promptly publish a summary of the determination in the Federal Register and on the website of the Department of Labor, together with the Secretary's reasons for making such determination.

(2) ONE YEAR LIMITATION.—A certification under this section shall not apply to any worker whose last total or partial separation from the employment site before the worker's application under section 426(a) occurred more than 1 year before the date of the petition on which such certification was granted.

(3) REVOCATION OF CERTIFICATION.—Whenever the Secretary determines, with respect to any certification of eligibility of the workers of an employment site, that total or partial separations from such site are no longer a result of the factors specified in subsection (b)(1), the Secretary shall terminate such certification and promptly have notice of such termination published in the Federal Register and on the website of the Department of Labor, together with the Secretary's reasons for making such determination. Such termination shall apply only with respect to total or partial separations occurring after the termination date specified by the Secretary.

(e) INDUSTRY NOTIFICATION OF ASSISTANCE.—Upon receiving a notification of a determination under subsection (d) with respect to a domestic industry the Secretary of Labor shall notify the representatives of the domestic industry affected by the determination, employers publicly identified by name during the course of the proceeding relating to the determination, and any certified or recognized union or, to the extent practicable, other duly authorized representative of workers employed by such representatives of the domestic industry, of—

(1) the adjustment allowances, training, and other benefits available under this part;

(2) the manner in which to file a petition and apply for such benefits; and

(3) the availability of assistance in filing such petitions;

(4) notify the Governor of each State in which one or more employers in such industry are located of the Secretary's determination and the identity of the employers; and

(5) upon request, provide any assistance that is necessary to file a petition under subsection (a).

(f) BENEFIT INFORMATION TO WORKERS, PROVIDERS OF TRAINING.—

(1) IN GENERAL.—The Secretary shall provide full information to workers about the adjustment allowances, training, and other benefits available under this part and about the petition and application procedures, and the appropriate filing dates, for such allowances, training and services. The Secretary shall provide whatever assistance is necessary to enable groups of workers to prepare petitions or applications for program benefits. The Secretary shall make every effort to insure that cooperating State agencies fully comply with the agreements entered into under section 426(a) and shall periodically review such compliance. The Secretary shall inform the State Board for Vocational Education or equivalent agency, the one-stop operators or one-stop partners (as defined in section 101 of the Workforce Investment Act of 1998 (29 U.S.C. 2801), and other public or private agencies, institutions, and employers, as appropriate, of each certification issued under subsection (d) and of projections, if available, of the needs for training under as a result of such certification.

(2) NOTICE BY MAIL.—The Secretary shall provide written notice through the mail of the benefits available under this part to each worker whom the Secretary has reason to believe is covered by a certification made under subsection (d)—

(A) at the time such certification is made, if the worker was partially or totally separated from the adversely affected employment before such certification, or—

(B) at the time of the total or partial separation of the worker from the adversely affected employment, if subparagraph (A) does not apply.

(3) NEWSPAPERS; WEBSITE.—The Secretary shall publish notice of the benefits available under this part to workers covered by each certification made under subsection (d) in newspapers of general circulation in the areas in which such workers reside and shall make such information available on the website of the Department of Labor.

SEC. 426. PROGRAM BENEFITS.

(a) CLIMATE CHANGE ADJUSTMENT ALLOWANCE.—

(1) ELIGIBILITY.—Payment of a climate change adjustment allowance shall be made to an adversely affected worker covered by a certification under section 425(b) who files an application for such allowance for any week of unemployment which begins on or after the date of such certification, if the following conditions are met:

(A) Such worker's total or partial separation before the worker's application under this part occurred—

(i) on or after the date, as specified in the certification under which the worker is covered, on which total or partial separation began or threatened to begin in the adversely affected employment;

(ii) before the expiration of the 2-year period beginning on the date on which the determination under section 425(d) was made; and

(iii) before the termination date, if any, determined pursuant to section 425(d)(3).

(B) Such worker had, in the 52-week period ending with the week in which such total or partial separation occurred, at least 26 weeks of full-time employment or 1,040 hours of part time employment in adversely affected employment, or, if data with respect to weeks of employment are not available, equivalent amounts of employment computed under regulations prescribed by the Secretary. For the purposes of this paragraph, any week in which such worker—

(i) is on employer-authorized leave for purposes of vacation, sickness, injury, maternity, or inactive duty or active duty military service for training;

(ii) does not work because of a disability that is compensable under a workmen's compensation law or plan of a State or the United States;

(iii) had his employment interrupted in order to serve as a full-time representative of a labor organization in such firm; or

(iv) is on call-up for purposes of active duty in a reserve status in the Armed Forces of the United States, provided such active duty is "Federal service" as defined in section 8521(a)(1) of title 5, United States Code,

shall be treated as a week of employment.

(C) Such worker is enrolled in a training program approved by the Secretary under subsection (b)(2).

(2) INELIGIBILITY FOR CERTAIN OTHER BENEFITS.—An adversely affected worker receiving a payment under this section shall be ineligible to receive any other form of unemployment insurance for the period in which such worker is receiving a climate change adjustment allowance under this section.

(3) REVOCATION.—If—

(A) the Secretary determines that—

(i) the adversely affected worker—

(I) has failed to begin participation in the training program the enrollment in which meets the requirement of paragraph (1)(C); or

(II) has ceased to participate in such training program before completing such training program; and

(ii) there is no justifiable cause for such failure or cessation; or

(B) the certification made with respect to such worker under section 425(d) is revoked under paragraph (3) of such section,

no adjustment allowance may be paid to the adversely affected worker under this part for the week in which such failure, cessation, or revocation occurred, or any succeeding week, until the adversely affected worker begins or resumes participation in a training program approved by the Secretary under section (b)(2).

(4) WAIVERS OF TRAINING REQUIREMENTS.—The Secretary may issue a written statement to an adversely affected worker waiving the requirement to be enrolled in training described in subsection (b)(2) if the Secretary determines that it is not feasible or appropriate for the worker, because of 1 or more of the following reasons:

(A) RECALL.—The worker has been notified that the worker will be recalled by the employer from which the separation occurred.

(B) MARKETABLE SKILLS.—

(i) IN GENERAL.—The worker possesses marketable skills for suitable employment (as determined pursuant to an assessment of the worker, which may include the profiling system under section 303(j) of the Social Security Act (42 U.S.C. 503(j)), carried out in accordance with

guidelines issued by the Secretary) and there is a reasonable expectation of employment at equivalent wages in the foreseeable future.

(ii) MARKETABLE SKILLS DEFINED.—For purposes of clause (i), the term "marketable skills" may include the possession of a postgraduate degree from an institution of higher education (as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)) or an equivalent institution, or the possession of an equivalent postgraduate certification in a specialized field.

(C) RETIREMENT.—The worker is within 2 years of meeting all requirements for entitlement to either—

(i) old-age insurance benefits under title II of the Social Security Act (42 U.S.C. 401 et seq.) (except for application therefor); or

(ii) a private pension sponsored by an employer or labor organization.

(D) HEALTH.—The worker is unable to participate in training due to the health of the worker, except that a waiver under this subparagraph shall not be construed to exempt a worker from requirements relating to the availability for work, active search for work, or refusal to accept work under Federal or State unemployment compensation laws.

(E) ENROLLMENT UNAVAILABLE.—The first available enrollment date for the training of the worker is within 60 days after the date of the determination made under this paragraph, or, if later, there are extenuating circumstances for the delay in enrollment, as determined pursuant to guidelines issued by the Secretary.

(F) TRAINING NOT AVAILABLE.—Training described in subsection (b)(2) is not reasonably available to the worker from either governmental agencies or private sources (which may include area career and technical education schools, as defined in section 3 of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2302), and employers), no training that is suitable for the worker is available at a reasonable cost, or no training funds are available.

(5) WEEKLY AMOUNTS.—The climate change adjustment allowance payable to an adversely affected worker for a week of unemployment shall be an amount equal to 70 percent of the average weekly wage of such worker, but in no case shall such amount exceed the average weekly wage for all workers in the State where the adversely affected worker resides.

(6) MAXIMUM DURATION OF BENEFITS.—An eligible worker may receive a climate change adjustment allowance under this subsection for a period of not longer than 156 weeks.

(b) EMPLOYMENT SERVICES AND TRAINING.—

(1) INFORMATION AND EMPLOYMENT SERVICES.—The Secretary shall make available, directly or through agreements with the States under section 427(a) to adversely affected workers covered by a certification under section 425(a) the following information and employment services:

(A) Comprehensive and specialized assessment of skill levels and service needs, including through—

(i) diagnostic testing and use of other assessment tools; and

(ii) in-depth interviewing and evaluation to identify employment barriers and appropriate employment goals.

(B) Development of an individual employment plan to identify employment goals and objectives, and appropriate training to achieve those goals and objectives.

(C) Information on training available in local and regional areas, information on individual counseling to determine which training is suitable training, and information on how to apply for such training.

(D) Information on training programs and other services provided by a State pursuant to title I of the Workforce Investment Act of 1998 and available in local and regional areas, information on individual counseling to determine which training is suitable training, and information on how to apply for such training.

(E) Information on how to apply for financial aid, including referring workers to educational opportunity centers described in section 402F of the Higher Education Act of 1965 (20 U.S.C. 1070a–16), where applicable, and notifying workers that the workers may request financial aid administrators at institutions of higher education (as defined in section 102 of such Act (20 U.S.C. 1002)) to use the administrators' discretion under section 479A of such Act (20 U.S.C. 1087tt) to use current year income data, rather than preceding year income data, for determining the amount of need of the workers for Federal financial assistance under title IV of such Act (20 U.S.C. 1070 et seq.).

(F) Short-term prevocational services, including development of learning skills, communications skills, interviewing skills, punctuality, personal maintenance skills, and professional conduct to prepare individuals for employment or training.

(G) Individual career counseling, including job search and placement counseling, during the period in which the individual is receiving a climate change adjustment allowance or training under this part, and after receiving such training for purposes of job placement.

(H) Provision of employment statistics information, including the provision of accurate information relating to local, regional, and national labor market areas, including—

(i) job vacancy listings in such labor market areas;

(ii) information on jobs skills necessary to obtain jobs identified in job vacancy listings described in subparagraph (A);

(iii) information relating to local occupations that are in demand and earnings potential of such occupations; and

(iv) skills requirements for local occupations described in subparagraph (C).

(I) Information relating to the availability of supportive services, including services relating to child care, transportation, dependent care, housing assistance, and need-related payments that are necessary to enable an individual to participate in training.

(2) TRAINING.—

(A) APPROVAL OF AND PAYMENT FOR TRAINING.—If the Secretary determines, with respect to an adversely affected worker that—

(i) there is no suitable employment (which may include technical and professional employment) available for an adversely affected worker;

(ii) the worker would benefit from appropriate training;

(iii) there is a reasonable expectation of employment following completion of such training;

(iv) training approved by the Secretary is reasonably available to the worker from either governmental agencies or private sources (including area career and technical education schools, as defined in section 3 of the Carl D. Perkins Career and Technical Education Act of 2006, and employers);

(v) the worker is qualified to undertake and complete such training; and

(vi) such training is suitable for the worker and available at a reasonable cost,

the Secretary shall approve such training for the worker. Upon such approval, the worker shall be entitled to have payment of the costs of such training (subject to the limitations imposed by this section) paid on the worker's behalf by the Secretary directly or through a voucher system.

(B) DISTRIBUTION.—The Secretary shall establish procedures for the distribution of the funds to States to carry out the training programs approved under this paragraph, and shall make an initial distribution of the funds made available as soon as practicable after the beginning of each fiscal year.

(C) ADDITIONAL RULES REGARDING APPROVAL OF AND PAYMENT FOR TRAINING.—

(i) For purposes of applying subparagraph (A)(iii), a reasonable expectation of employment does not require that employment opportunities for a worker be available, or offered, immediately upon the completion of training approved under such subparagraph.

(ii) If the costs of training an adversely affected worker are paid by the Secretary under subparagraph (A), no other payment for such costs may be made under any other provision of Federal law. No payment may be made under subparagraph (A) of the costs of training an adversely affected worker or an adversely affected incumbent worker if such costs—

(I) have already been paid under any other provision of Federal law; or

(II) are reimbursable under any other provision of Federal law and a portion of such costs have already been paid under such other provision of Federal law.

The provisions of this clause shall not apply to, or take into account, any funds provided under any other provision of Federal law which are used for any purpose other than the direct payment of the costs incurred in training a particular adversely affected worker, even if such

use has the effect of indirectly paying or reducing any portion of the costs involved in training the adversely affected worker.

(D) TRAINING PROGRAMS.—The training programs that may be approved under subparagraph (A) include—

(i) employer-based training, including—

(I) on-the-job training if approved by the Secretary under subsection (c); and

(II) joint labor-management apprenticeship programs;

(ii) any training program provided by a State pursuant to title I of the Workforce Investment Act of 1998;

(iii) any training program approved by a private industry council established under section 102 of such Act;

(iv) any programs in career and technical education described in section 3(5) of the Carl D. Perkins Career and Technical Education Act of 2006;

(v) any program of remedial education;

(vi) any program of prerequisite education or coursework required to enroll in training that may be approved under this paragraph;

(vii) any training program for which all, or any portion, of the costs of training the worker are paid—

(I) under any Federal or State program other than this part; or

(II) from any source other than this part;

(viii) any training program or coursework at an accredited institution of higher education (described in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)), including a training program or coursework for the purpose of—

(I) obtaining a degree or certification; or

(II) completing a degree or certification that the worker had previously begun at an accredited institution of higher education; and

(ix) any other training program approved by the Secretary.

(3) SUPPLEMENTAL ASSISTANCE.—The Secretary may, as appropriate, authorize supplemental assistance that is necessary to defray reasonable transportation and subsistence expenses for separate maintenance in a case in which training for a worker is provided in a facility that is not within commuting distance of the regular place of residence of the worker.

(c) ON-THE-JOB TRAINING REQUIREMENTS.—

(1) IN GENERAL.—The Secretary may approve on-the-job training for any adversely affected worker if—

(A) the Secretary determines that on-the-job training—

(i) can reasonably be expected to lead to suitable employment with the employer offering the on-the-job training;

(ii) is compatible with the skills of the worker;

(iii) includes a curriculum through which the worker will gain the knowledge or skills to become proficient in the job for which the worker is being trained; and

(iv) can be measured by benchmarks that indicate that the worker is gaining such knowledge or skills; and

(B) the State determines that the on-the-job training program meets the requirements of clauses (iii) and (iv) of subparagraph (A).

(2) MONTHLY PAYMENTS.—The Secretary shall pay the costs of on-the-job training approved under paragraph (1) in monthly installments.

(3) CONTRACTS FOR ON-THE-JOB TRAINING.—

(A) IN GENERAL.—The Secretary shall ensure, in entering into a contract with an employer to provide on-the-job training to a worker under this subsection, that the skill requirements of the job for which the worker is being trained, the academic and occupational skill level of the worker, and the work experience of the worker are taken into consideration.

(B) TERM OF CONTRACT.—Training under any such contract shall be limited to the period of time required for the worker receiving on-the-job training to become proficient in the job for which the worker is being trained, but may not exceed 156 weeks in any case.

(4) EXCLUSION OF CERTAIN EMPLOYERS.—The Secretary shall not enter into a contract for on-the-job training with an employer that exhibits a pattern of failing to provide workers receiving on-the-job training from the employer with—

(A) continued, long-term employment as regular employees; and

(B) wages, benefits, and working conditions that are equivalent to the wages, benefits, and working conditions provided to regular employees who have worked a similar period of time and are doing the same type of work as workers receiving on-the-job training from the employer.

(d) ADMINISTRATIVE AND EMPLOYMENT SERVICES FUNDING.—

(1) ADMINISTRATIVE FUNDING.—In addition to any funds made available to a State to carry out this section for a fiscal year, the State shall receive for the fiscal year a payment in an amount that is equal to 15 percent of the amount of such funds and shall—

(A) use not more than ⅔ of such payment for the administration of the climate change adjustment assistance for workers program under this part, including for—

(i) processing waivers of training requirements under subsection (a)(4); and

(ii) collecting, validating, and reporting data required under this part; and

(B) use not less than ⅓ of such payment for information and employment services under subsection (b)(1).

(2) EMPLOYMENT SERVICES FUNDING.—

(A) IN GENERAL.—In addition to any funds made available to a State to carry out subsection (b)(2) and the payment under paragraph (1) for a fiscal year, the Secretary shall provide to the State for the fiscal year a reasonable payment for the purpose of providing employment and services under subsection (b)(1).

(B) VOLUNTARY RETURN OF FUNDS.—A State that receives a payment under subparagraph (A) may decline or otherwise return such payment to the Secretary.

(e) JOB SEARCH ALLOWANCES.—The Secretary of Labor may provide adversely affected workers a one-time job search allowance in accordance with regulations prescribed by the Secretary. Any job search allowance provided shall be available only under the following circumstances and conditions:

(1) The worker is no longer eligible for the climate change adjustment allowance under subsection (a) and has completed the training program required by subsection (a)(1)(E).

(2) The Secretary determines that the worker cannot reasonably be expected to secure suitable employment in the commuting area in which the worker resides.

(3) An allowance granted shall provide reimbursement to the worker of all necessary job search expenses as prescribed by the Secretary in regulations. Such reimbursement under this subsection may not exceed $1,500 for any worker.

(f) RELOCATION ALLOWANCE AUTHORIZED.—

(1) IN GENERAL.—Any adversely affected worker covered by a certification issued under section 425 may file an application for a relocation allowance with the Secretary, and the Secretary may grant the relocation allowance, subject to the terms and conditions of this subsection.

(2) CONDITIONS FOR GRANTING ALLOWANCE.—A relocation allowance may be granted if all of the following terms and conditions are met:

(A) ASSIST AN ADVERSELY AFFECTED WORKER.—The relocation allowance will assist an adversely affected worker in relocating within the United States.

(B) LOCAL EMPLOYMENT NOT AVAILABLE.—The Secretary determines that the worker cannot reasonably be expected to secure suitable employment in the commuting area in which the worker resides.

(C) TOTAL SEPARATION.—The worker is totally separated from employment at the time relocation commences.

(D) SUITABLE EMPLOYMENT OBTAINED.—The worker—

(i) has obtained suitable employment affording a reasonable expectation of long-term duration in the area in which the worker wishes to relocate; or

(ii) has obtained a bona fide offer of such employment.

(E) APPLICATION.—The worker filed an application with the Secretary at such time and in such manner as the Secretary shall specify by regulation.

(3) AMOUNT OF ALLOWANCE.—The relocation allowance granted to a worker under paragraph (1) includes—

(A) all reasonable and necessary expenses (including, subsistence and transportation expenses at levels not exceeding amounts prescribed by the Secretary in regulations) incurred in transporting the worker, the worker's family, and household effects; and

(B) a lump sum equivalent to 3 times the worker's average weekly wage, up to a maximum payment of $1,500.

(4) LIMITATIONS.—A relocation allowance may not be granted to a worker unless—

(A) the relocation occurs within 182 days after the filing of the application for relocation assistance; or

(B) the relocation occurs within 182 days after the conclusion of training, if the worker entered a training program approved by the Secretary under subsection (b)(2).

(g) HEALTH INSURANCE CONTINUATION.—Not later than 1 year after the date of enactment of this part, the Secretary of Labor shall prescribe regulations to provide, for the period in which an adversely affected worker is participating in a training program described in subsection (b)(2), 80 percent of the monthly premium of any health insurance coverage that an adversely affected worker was receiving from such worker's employer prior to the separation from employment described in section 425(b), to be paid to any health care insurance plan designated by the adversely affected worker receiving an allowance under this section.

SEC. 427. GENERAL PROVISIONS.

(a) AGREEMENTS WITH STATES.—

(1) IN GENERAL.—The Secretary is authorized on behalf of the United States to enter into an agreement with any State, or with any State agency (referred to in this section as "cooperating States" and "cooperating States agencies" respectively). Under such an agreement, the cooperating State agency—

(A) as agent of the United States, shall receive applications for, and shall provide, payments on the basis provided in this part;

(B) in accordance with paragraph (6), shall make available to adversely affected workers covered by a certification under section 425(d) the employment services described in section 426(b)(1);

(C) shall make any certifications required under section 425(d);

(D) shall otherwise cooperate with the Secretary and with other State and Federal agencies in providing payments and services under this part.

Each agreement under this section shall provide the terms and conditions upon which the agreement may be amended, suspended, or terminated.

(2) FORM AND MANNER OF DATA.—Each agreement under this section shall—

(A) provide the Secretary with the authority to collect any data the Secretary determines necessary to meet the requirements of this part; and

(B) specify the form and manner in which any such data requested by the Secretary shall be reported.

(3) RELATIONSHIP TO UNEMPLOYMENT INSURANCE.—Each agreement under this section shall provide that an adversely affected worker receiving a climate change adjustment allowance under this part shall not be eligible for unemployment insurance otherwise payable to such worker under the laws of the State.

(4) REVIEW.—A determination by a cooperating State agency with respect to entitlement to program benefits under an agreement is subject to review in the same manner and to the same extent as determinations under the applicable State law and only in that manner and to that extent.

(5) COORDINATION.—Any agreement entered into under this section shall provide for the coordination of the administration of the provisions for employment services, training, and supplemental assistance under section 426 and under title I of the Workforce Investment Act of 1998 upon such terms and conditions as are established by the Secretary in consultation with the States and set forth in such agreement. Any agency of the State jointly administering such provisions under such agreement shall be considered to be a cooperating State agency for purposes of this part.

(6) RESPONSIBILITIES OF COOPERATING AGENCIES.—Each cooperating State agency shall, in carrying out paragraph (1)(B)—

(A) advise each worker who applies for unemployment insurance of the benefits under this part and the procedures and deadlines for applying for such benefits;

(B) facilitate the early filing of petitions under section 425(a) for any workers that the agency considers are likely to be eligible for benefits under this part;

(C) advise each adversely affected worker to apply for training under section 426(b) before, or at the same time, the worker applies for climate change adjustment allowances under section 426(a);

(D) perform outreach to, intake of, and orientation for adversely affected workers and adversely affected incumbent workers covered by a certification under section 426(a) with respect to assistance and benefits available under this part;

(E) make employment services described in section 426(b)(1) available to adversely affected workers and adversely affected incumbent workers covered by a certification under section 425(d) and, if funds provided to carry

out this part are insufficient to make such services available, make arrangements to make such services available through other Federal programs; and

(F) provide the benefits and reemployment services under this part in a manner that is necessary for the proper and efficient administration of this part, including the use of state agency personnel employed in accordance with a merit system of personnel administration standards, including—

(i) making determinations of eligibility for, and payment of, climate change readjustment allowances and health care benefit replacement amounts;

(ii) developing recommendations regarding payments as a bridge to retirement and lump sum payments to pension plans in accordance with this subsection; and

(iii) the provision of reemployment services to eligible workers, including referral to training services.

(7) In order to promote the coordination of workforce investment activities in each State with activities carried out under this part, any agreement entered into under this section shall provide that the State shall submit to the Secretary, in such form as the Secretary may require, the description and information described in paragraphs (8) and (14) of section 112(b) of the Workforce Investment Act of 1998 (29 U.S.C. 2822(b)) and a description of the State's rapid response activities under section 221(a)(2)(A).

(8) CONTROL MEASURES.—

(A) IN GENERAL.—The Secretary shall require each cooperating State and cooperating State agency to implement effective control measures and to effectively oversee the operation and administration of the climate change adjustment assistance program under this part, including by means of monitoring the operation of control measures to improve the accuracy and timeliness of the data being collected and reported.

(B) DEFINITION.—For purposes of subparagraph (A), the term "control measures" means measures that—

(i) are internal to a system used by a State to collect data; and

(ii) are designed to ensure the accuracy and verifiability of such data.

(9) DATA REPORTING.—

(A) IN GENERAL.—Any agreement entered into under this section shall require the cooperating State or cooperating State agency to report to the Secretary on a quarterly basis comprehensive performance accountability data, to consist of—

(i) the core indicators of performance described in subparagraph (B)(i);

(ii) the additional indicators of performance described in subparagraph (B)(ii), if any; and

(iii) a description of efforts made to improve outcomes for workers under the climate change adjustment assistance program.

(B) CORE INDICATORS DESCRIBED.—

(i) IN GENERAL.—The core indicators of performance described in this subparagraph are—

(I) the percentage of workers receiving benefits under this part who are employed during the second calendar quarter following the calendar quarter in which the workers cease receiving such benefits;

(II) the percentage of such workers who are employed in each of the third and fourth calendar quarters following the calendar quarter in which the workers cease receiving such benefits; and

(III) the earnings of such workers in each of the third and fourth calendar quarters following the calendar quarter in which the workers cease receiving such benefits.

(ii) ADDITIONAL INDICATORS.—The Secretary and a cooperating State or cooperating State agency may agree upon additional indicators of performance for the climate change adjustment assistance program under this part, as appropriate.

(C) STANDARDS WITH RESPECT TO RELIABILITY OF DATA.—In preparing the quarterly report required by subparagraph (A), each cooperating State or cooperating State agency shall establish procedures that are consistent with guidelines to be issued by the Secretary to ensure that the data reported are valid and reliable.

(10) VERIFICATION OF ELIGIBILITY FOR PROGRAM BENEFITS.—

(A) IN GENERAL.—An agreement under this section shall provide that the State shall periodically redetermine that a worker receiving benefits under

this part who is not a citizen or national of the United States remains in a satisfactory immigration status. Once satisfactory immigration status has been initially verified through the immigration status verification system described in section 1137(d) of the Social Security Act (42 U.S.C. 1320b-7(d)) for purposes of establishing a worker's eligibility for unemployment compensation, the State shall reverify the worker's immigration status if the documentation provided during initial verification will expire during the period in which that worker is potentially eligible to receive benefits under this part. The State shall conduct such redetermination in a timely manner, utilizing the immigration status verification system described in section 1137(d) of the Social Security Act (42 U.S.C. 1320b-7(d)).

(B) PROCEDURES.—The Secretary shall establish procedures to ensure the uniform application by the States of the requirements of this paragraph.

(b) ADMINISTRATION ABSENT STATE AGREEMENT.—

(1) In any State where there is no agreement in force between a State or its agency under subsection (a), the Secretary shall promulgate regulations for the performance of all necessary functions under section 426, including provision for a fair hearing for any worker whose application for payments is denied.

(2) A final determination under paragraph (1) with respect to entitlement to program benefits under section 426 is subject to review by the courts in the same manner and to the same extent as is provided by section 205(g) of the Social Security Act (42 U.S.C. 405(g)).

(c) PROHIBITION ON CONTRACTING WITH PRIVATE ENTITIES.—Neither the Secretary nor a State may contract with any private for-profit or nonprofit entity for the administration of the climate change adjustment assistance program under this part.

(d) PAYMENT TO THE STATES.—

(1) IN GENERAL.—The Secretary shall from time to time certify to the Secretary of the Treasury for payment to each cooperating State the sums necessary to enable such State as agent of the United States to make payments provided for by this part.

(2) RESTRICTION.—All money paid a State under this subsection shall be used solely for the purposes for which it is paid; and money so paid which is not used for such purposes shall be returned, at the time specified in the agreement under this section, to the Secretary of the Treasury.

(3) BONDS.—Any agreement under this section may require any officer or employee of the State certifying payments or disbursing funds under the agreement or otherwise participating in the performance of the agreement, to give a surety bond to the United States in such amount as the Secretary may deem necessary, and may provide for the payment of the cost of such bond from funds for carrying out the purposes of this part.

(e) LABOR STANDARDS.—

(1) PROHIBITION ON DISPLACEMENT.—An individual in an apprenticeship program or on-the-job training program under this part shall not displace (including a partial displacement, such as a reduction in the hours of non-overtime work, wages, or employment benefits) any employed employee.

(2) PROHIBITION ON IMPAIRMENT OF CONTRACTS.—An apprenticeship program or on-the-job raining program under this Act shall not impair an existing contract for services or collective bargaining agreement, and no such activity that would be inconsistent with the terms of a collective bargaining agreement shall be undertaken without the written concurrence of the labor organization and employer concerned.

(3) ADDITIONAL STANDARDS.—The Secretary, or a State acting under an agreement described in subsection (a) may pay the costs of on-the-job training, notwithstanding any other provision of this section, only if—

(A) in the case of training which would be inconsistent with the terms of a collective bargaining agreement, the written concurrence of the labor organization concerned has been obtained;

(B) the job for which such adversely affected worker is being trained is not being created in a promotional line that will infringe in any way upon the promotional opportunities of currently employed individuals;

(C) such training is not for the same occupation from which the worker was separated and with respect to which such worker's group was certified pursuant to section 425(d);

(D) the employer is provided reimbursement of not more than 50 percent of the wage rate of the participant, for the cost of providing the training and additional supervision related to the training; and

(E) the employer has not received payment under with respect to any other on-the-job training provided by such employer which failed to meet the requirements of subparagraphs (A) through (D).

(f) DEFINITIONS.—As used in this part the following definitions apply:

(1) The term "adversely affected employment" means employment at an employment site, if workers at such site are eligible to apply for adjustment assistance under this part.

(2) The term "adversely affected worker" means an individual who has been totally or partially separated from employment and is eligible to apply for adjustment assistance under this part.

(3) The term "average weekly wage" means 1/13 of the total wages paid to an individual in the quarter in which the individual's total wages were highest among the first 4 of the last 5 completed calendar quarters immediately before the quarter in which occurs the week with respect to which the computation is made. Such week shall be the week in which total separation occurred, or, in cases where partial separation is claimed, an appropriate week, as defined in regulations prescribed by the Secretary.

(4) The term "average weekly hours" means the average hours worked by the individual (excluding overtime) in the employment from which he has been or claims to have been separated in the 52 weeks (excluding weeks during which the individual was sick or on vacation) preceding the week specified in the last sentence of paragraph (4).

(5) The term "benefit period" means, with respect to an individual—

(A) the benefit year and any ensuing period, as determined under applicable State law, during which the individual is eligible for regular compensation, additional compensation, or extended compensation; or

(B) the equivalent to such a benefit year or ensuing period provided for under the applicable Federal unemployment insurance law.

(6) The term "consumer goods manufacturing" means the electrical equipment, appliance, and component manufacturing industry and transportation equipment manufacturing.

(7) The term "employment site" means a single facility or site of employment.

(8) The term "energy-intensive manufacturing industries" means all industrial sectors, entities, or groups of entities that meet the energy or greenhouse gas intensity criteria in section 765(b)(2)(A)(i) of the Clean Air Act based on the most recent data available.

(9) The term "energy producing and transforming industries" means the coal mining industry, oil and gas extraction, electricity power generation, transmission and distribution, and natural gas distribution.

(10) The term "industries dependent on energy industries" means rail transportation and pipeline transportation.

(11) The term "on-the-job training" means training provided by an employer to an individual who is employed by the employer.

(12) The terms "partial separation" and "partially separated" refer, with respect to an individual who has not been totally separated, that such individual has had—

(A) his or her hours of work reduced to 80 percent or less of his average weekly hours in adversely affected employment; and

(B) his or her wages reduced to 80 percent or less of his average weekly wage in such adversely affected employment.

(13) The term "public agency" means a department or agency of a State or political subdivision of a State or of the Federal government.

(14) The term "Secretary" means the Secretary of Labor.

(15) The term "service workers" means workers supplying support or auxiliary services to an employment site.

(16) The term "State" includes the District of Columbia and the Commonwealth of Puerto Rico: and the term "United States" when used in the geographical sense includes such Commonwealth.

(17) The term "State agency" means the agency of the State which administers the State law.

(18) The term "State law" means the unemployment insurance law of the State approved by the Secretary of Labor under section 3304 of the Internal Revenue Code of 1954.

(19) The terms "total separation" and "totally separated" refer to the layoff or severance of an individual from employment with an employer in which adversely affected employment exists.

(20) The term "unemployment insurance" means the unemployment compensation payable to an individual under any State law or Federal unemployment compensation law, including chapter 85 of title 5, United States Code, and the Railroad Unemployment Insurance Act. The terms "regular compensation", "additional compensation", and "extended compensation" have the same respective meanings that are given them in section 205(2), (3), and (4) of the Federal-

State Extended Unemployment Compensation Act of 1970 (26 U.S.C. 3304 note.)

(21) The term "week" means a week as defined in the applicable State law.

(22) The term "week of unemployment" means a week of total, part-total, or partial unemployment as determined under the applicable State law or Federal unemployment insurance law.

(g) SPECIAL RULE WITH RESPECT TO MILITARY SERVICE.—

(1) IN GENERAL.—Notwithstanding any other provision of this part, the Secretary may waive any requirement of this part that the Secretary determines is necessary to ensure that an adversely affected worker who is a member of a reserve component of the Armed Forces and serves a period of duty described in paragraph (2) is eligible to receive a climate change adjustment allowance, training, and other benefits under this part in the same manner and to the same extent as if the worker had not served the period of duty.

(2) PERIOD OF DUTY DESCRIBED.—An adversely affected worker serves a period of duty described in this paragraph if, before completing training under this part, the worker—

(A) serves on active duty for a period of more than 30 days under a call or order to active duty of more than 30 days; or

(B) in the case of a member of the Army National Guard of the United States or Air National Guard of the United States, performs full-time National Guard duty under section 502(f) of title 32, United States Code, for 30 consecutive days or more when authorized by the President or the Secretary of Defense for the purpose of responding to a national emergency declared by the President and supported by Federal funds.

(h) FRAUD AND RECOVERY OF OVERPAYMENTS.—

(1) RECOVERY OF PAYMENTS TO WHICH AN INDIVIDUAL WAS NOT ENTITLED.—If the Secretary or a court of competent jurisdiction determines that any person has received any payment under this part to which the individual was not entitled, such individual shall be liable to repay such amount to the Secretary, as the case may be, except that the Secretary shall waive such repayment if such agency or the Secretary determines that—

(A) the payment was made without fault on the part of such individual; and

(B) requiring such repayment would cause a financial hardship for the individual (or the individual's household, if applicable) when taking into consideration the income and resources reasonably available to the individual (or household) and other ordinary living expenses of the individual (or household).

(2) MEANS OF RECOVERY.—Unless an overpayment is otherwise recovered, or waived under paragraph (1), the Secretary shall recover the overpayment by deductions from any sums payable to such person under this part, under any Federal unemployment compensation law or other Federal law administered by the Secretary which provides for the payment of assistance or an allowance with respect to unemployment. Any amount recovered under this section shall be returned to the Treasury of the United States.

(3) PENALTIES FOR FRAUD.—Any person who—

(A) makes a false statement of a material fact knowing it to be false, or knowingly fails to disclose a material fact, for the purpose of obtaining or increasing for that person or for any other person any payment authorized to be furnished under this part; or

(B) makes a false statement of a material fact knowing it to be false, or knowingly fails to disclose a material fact, when providing information to the Secretary during an investigation of a petition under section 425(c),

shall be imprisoned for not more than one year, or fined under title 18, United States Code, or both, and be ineligible for any further payments under this part.

(i) REGULATIONS.—The Secretary shall prescribe such regulations as may be necessary to carry out the provisions of this part.

(j) STUDY ON OLDER WORKERS.—The Secretary shall conduct a study examine the circumstances of older adversely affected workers and the ability of such workers to access their retirement benefits. The Secretary shall transmit a report to Congress not later than 2 years after the date of enactment of this part on the findings of the study and the Secretary's recommendations on how to ensure that adversely affected workers within 2 years of retirement are able to access their retirement benefits.

[(k) SPENDING LIMIT.—For each fiscal year, the total amount of funds disbursed for the purposes described in section 426 shall not exceed the amount deposited in that fiscal year into the Climate Change Worker Assistance Fund established under section [782(j)] of the Clean Air Act. The annual spending limit for any succeeding

year shall be increased by the difference, if any, between the amount of the prior year's disbursements and the spending limitation for that year. The Secretary shall promulgate rules to ensure that this spending limit is not exceeded. Such rules shall provide that workers who receive any of the benefits described in section 426 receive full benefits, and shall include the establishment of a waiting list for workers in the event that the requests for assistance exceed the spending limit.]

Subtitle C—Consumer Assistance

SEC. 431. ENERGY TAX CREDIT.

Subpart C of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by inserting after section 36A the following new section:

"SEC. 36B. ENERGY TAX CREDIT.

"(a) ALLOWANCE OF CREDIT.—In the case of an eligible individual, there shall be allowed as a credit against the tax imposed by this subtitle for the taxable year an amount equal to—

"(1) for an eligible individual with applicable income of less than $6,000, the phase in rate times the applicable income;

"(2) for an eligible individual with applicable income that is greater than or equal to $6,000 and is less than or equal to the phase down amount, the maximum energy tax credit; and

"(3) for an individual with applicable income that exceeds the phase down amount, an amount equal to—

"(A) the maximum energy tax credit minus; or

"(B) the difference between the individual's applicable income and the phase down amount multiplied by .2.

"(b) COORDINATION WITH ENERGY REFUND RECEIVED THROUGH STATE HUMAN SERVICE AGENCIES.—The amount described in subsection (a) shall be reduced by 1/12 for each month in which the individual or his or her spouse received a refund under section 432 of the American Clean Energy and Security Act of 2009.

"(1) The Secretary of the Treasury shall promulgate regulations that instruct States on how to inform adult individuals who receive a refund under section 432 of the American Clean Energy and Security Act of 2009 of the number of months he or she received a refund and how such information shall be provided to the Internal Revenue Service.

"(2) The Secretary of the Treasury shall establish a telephone and online system that allows an individual to inquire about the number of months she or he received such a refund.

"(3) In the case of an individual that does not report the number of months a refund was provided under section 432 of the American Clean Energy and Security Act of 2009 or recorded an incorrect number of months, the Secretary of the Treasury shall adjust the energy tax credit based on the information received from States, provided that the Secretary of the Treasury has made a determination that the information meets a sufficient standard for accuracy.

"(c) DEFINITIONS AND SPECIAL RULES.—For purposes of this section:

"(1) ELIGIBLE INDIVIDUAL.—

"(A) IN GENERAL.—The term 'eligible individual' means any individual other than—

"(i) any nonresident alien individual;

"(ii) any individual with respect to whom a deduction under section 151 is allowable to another taxpayer for a taxable year beginning in the calendar year in which the individual's taxable year begins; and

"(iii) an estate or trust.

"(B) IDENTIFICATION NUMBER REQUIREMENT.—Such term shall not include any individual who—

"(i) in the case of a return that is not a joint return, does not include the social security number of the individual; and

"(ii) in the case of joint return, does not include the social security number of at least one of the taxpayers on such return.

For purposes of the preceding sentence, the social security number shall not include a TIN issued by the Internal Revenue Service.

"(2) APPLICABLE INCOME.—Applicable income means the larger of—

"(A) earned income as defined in section 32(c)(2), except that such term shall not include net earnings from self-employment which are not taken into account in computing taxable income; and

"(B) adjusted gross income.

"(3) PHASE IN RATE.—The Secretary of the Treasury shall compute the phase in rates each year for the energy credit for joint returns and for returns that are not filed jointly with respect to each relevant number of qualifying individuals such that the phase in rate equals the maximum energy tax credit divided by $6,000.

"(4) MAXIMUM ENERGY TAX CREDIT.—

"(A) IN GENERAL.—

"(i) The maximum energy tax credit shall vary based on the number of individuals in the tax filing unit.

"(ii) The maximum energy tax credit for a filing unit of a particular size shall be equal to the average annual reduction in purchasing power for low-income households of that household size, as calculated by the Environmental Protection Agency, that results from the regulation of greenhouse gas emissions under title VII of the Clean Air Act.

"(iii) The Environmental Protection Agency, in consultation with other appropriate Federal agencies, shall calculate the maximum energy tax credit by August 31 of each year for the following calendar year using the most recent, reliable data available.

"(B) ENERGY TAX CREDIT CALCULATION.—

"(i) DISTRIBUTION.—For each calendar year, the Environmental Protection Agency shall determine pursuant to subparagraph (B)(iii) the aggregate reduction in purchasing power among all United States households that results from the regulation of greenhouse gas emissions under title VII of the Clean Air Act and distribute that aggregate reduction in purchasing power among all United States households based on—

"(I) households' share of total consumption by all households;

"(II) the carbon intensity and covered-emissions intensity of households' consumption; and

"(III) the share of households' carbon and covered-emissions consumption that is not financed by Federal benefits subject to a cost of living adjustment that offsets increased carbon costs.

"(ii) MAXIMUM ENERGY TAX CREDIT.—The maximum energy tax credit shall be equal to the arithmetic mean value of the amount allocated under clause (i) to households of a specified household size in the lowest income quintile. Tax filing units that include 5 or more individuals shall be eligible for the arithmetic mean value of the amount allocated under clause (i) to households that includes 5 or more individuals.

"(iii) AGGREGATE REDUCTION IN PURCHASING POWER.—For purposes of this section, the aggregate reduction in purchasing power shall be based on the projected total market value of the emissions allowances used to demonstrate compliance with title VII of the Clean Air Act in that year, adjusted to reflect costs that were not incurred by households as a result of allowances freely allocated pursuant to section 782 of the Clean Air Act, as estimated by the Environmental Protection Agency, and calculated in a way generally recognized as suitable by experts in evaluating such purchasing power impacts.

"(iv) INCOME QUINTILES.—Income quintiles shall be determined by ranking households according to income adjusted for household size, and shall be constructed so that each quintile contains an equal number of people.

"(5) PHASE DOWN AMOUNT.—

"(A) In the case of an eligible individual who has no qualifying individuals, the phase down amount shall be—

"(i) $20,000 in the case of an individual who does not file a joint return; and

"(ii) $25,000 in the case of a joint return.

"(B) In the case of an eligible individual who files a joint return and has at least one qualifying individual—

"(i) If the eligible individual has one qualifying individual, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a married couple with one qualifying child is ineligible for the earned income credit for the taxable year.

"(ii) If the eligible individual has two qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a married couple with two qualifying children is ineligible for the earned income credit for the taxable year.

"(iii) If the eligible individual claims three or more qualifying individuals, the lowest income level that exceeds the phaseout amount as de-

fined in section 32(b)(2) at which a married couple with three or more qualifying children is ineligible for the earned income credit for the taxable year.

"(C) In the case of an eligible individual who does not file a joint return and has at least one individual qualifying individual—

"(i) If the eligible individual has one qualifying individual, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a single individual with one qualifying child is ineligible for the earned income credit for the taxable year.

"(ii) If the eligible individual has two qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a single individual with two qualifying children is ineligible for the earned income credit for the taxable year.

"(iii) If the eligible individual has three or more qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a single individual with three or more qualifying children is ineligible for the earned income credit for the taxable year.

"(6) QUALIFYING INDIVIDUAL.—A qualifying individual is an individual whom the eligible individual claims as a dependent under section 151, or as a qualifying child for the earned income credit under section 32(c)(3) or the child tax credit under section 24, or both. The term qualifying individual does not include—

"(A) someone claimed as a dependent under section 151 if that dependent is claimed as a qualifying child for the earned income tax credit or the child tax credit on a tax form by someone other than the eligible individual; and

"(B) the eligible individual and, if a joint return, his or her spouse.

"(7) NUMBER OF PEOPLE IN THE TAX FILING UNIT.—The number of people in the tax filing unit shall equal the sum of the number of qualifying individuals plus—

"(A) in the case of a joint return, 2; and

"(B) in the case of a return that is not filed jointly, 1.

"(d) TREATMENT OF POSSESSIONS.—

"(1) PAYMENTS TO POSSESSIONS.—

"(A) MIRROR CODE POSSESSION.—The Secretary of the Treasury shall pay to each possession of the United States with a mirror code tax system amounts equal to the loss to that possession by reason of the amendments made by this section. Such amounts shall be determined by the Secretary of the Treasury based on information provided by the Government of the respective possession.

"(B) OTHER POSSESSIONS.—The Secretary of the Treasury shall pay to each possession of the United States which does not have a mirror code tax system amounts estimated by the Secretary of the Treasury as being equal to the aggregate benefits that would have been provided to residents of such possession by reason of the amendments made by this section if a mirror code tax system had been in effect in such possession. The preceding sentence shall not apply for a given taxable year with respect to any possession of the United States unless such possession has a plan, which has been approved by the Secretary of the Treasury, under which such possession will promptly distribute such payments to residents of such possession.

"(2) COORDINATION WITH CREDIT ALLOWED AGAINST UNITED STATES INCOME TAXES.—No credit shall be allowed against United States income taxes for any taxable year under this section to any person—

"(A) to whom a credit is allowed against taxes imposed by the possession by reason of the amendments made by this section for such taxable year; or

"(B) who is eligible for a payment under a plan described in paragraph (1)(B) with respect to such taxable year.

"(e) AMOUNT OF CREDIT TO BE DETERMINED UNDER TABLES.—The amount of the credit allowed by this section shall be determined under tables prescribed by the Secretary.

"(f) INFLATION ADJUSTMENTS.— In the case of any taxable year beginning after 2009, dollar amounts in subsection (c)(4)(A) shall be increased by an amount equal to such dollar amount, multiplied by the cost-of-living adjustment determined under section 1(f)(3) of the Internal Revenue Code of 1986.

"(g) TREATMENT IN OTHER PROGRAMS.—The energy tax credit provided under this section shall not be considered income or resources for any purpose under any Federal, State, or local laws, including, but not limited to, laws relating to an income tax or public assistance program (including, but not limited to, health care, cash aid,

child care, nutrition programs, and housing assistance), and no participating State or political subdivision thereof shall decrease any assistance otherwise provided an individual or individuals because of the receipt of an energy tax credit under this Act.".

SEC. 432. ENERGY REFUND PROGRAM FOR LOW-INCOME CONSUMERS.

(a) ENERGY REFUND PROGRAM.—

(1) The Administrator of the Environmental Protection Agency, or the agency designated by the Administrator shall formulate and administer the "Energy Refund Program".

(2) At the request of the State agency, eligible low-income households within the State shall receive a monthly cash energy refund equal to the estimated loss in purchasing power resulting from this Act.

(b) ELIGIBILITY.—

(1) ELIGIBLE HOUSEHOLDS.—Participation in the Energy Refund Program shall be limited to a household that—

(A) the State agency determines to be participating in (i) the Supplemental Nutrition Assistance Program authorized by the Food and Nutrition Act of 2008 (7 U.S.C. 2011 et seq.); (ii) the Food Distribution Program on Indian Reservations authorized by section 4(b) of such Act (7 U.S.C. 2013(b)); or (iii) the program for nutrition assistance in Puerto Rico or American Samoa under section 19 of the such Act (7 U.S.C. 2028);

(B) has gross income that does not exceed 150 percent of the poverty line; or

(C) consists of a single individual or a married couple and (i) receives the subsidy described in section 1860D–14 of the Social Security Act (42 U.S.C. 1395w–114); or (ii)(I) participates in the program under section XVIII of the Social Security Act; and (II) meets the income requirements described in section 1860D–14(a)(1) or (a)(2) of such Act (42 U.S.C. 1395w–114(a)(1) or (a)(2)).

(2) STREAMLINED ELIGIBILITY FOR CERTAIN BENEFICIARIES.—The Administrator, in consultation with the Secretary of Health and Human Services, the Commissioner of Social Security, the Railroad Retirement Board, the Secretary of Veterans Affairs, and the State agencies shall develop procedures to ensure that low-income beneficiaries of the benefit programs they administer receive the energy refund for which they are eligible.

(3) LIMITATION.—Notwithstanding any provision of law, the Administrator shall establish procedures to ensure that individuals that qualify for the refund under paragraph (1)(B) and that do not participate in the Supplemental Nutrition Assistance Program are United States citizens, United States nationals, or individuals lawfully residing in the United States.

(4) NATIONAL STANDARDS.—The Administrator shall establish uniform national standards of eligibility in accordance with the provisions of this section. No State agency shall impose any other standard or requirement as a condition of eligibility or refund receipt under the program. Assistance in the Energy Refund Program shall be furnished promptly to all eligible households who make application for such participation.

(c) MONTHLY ENERGY REFUND AMOUNT.—

(1) MONTHLY ENERGY REFUND.—The monthly refund under this subsection for households of 1, 2, 3, 4, and 5 or more members shall be equal to the maximum energy tax credit amount calculated under section 36B(c)(4) of the Internal Revenue Code of 1986 for each household size, divided by 12 and rounded to the nearest whole dollar amount.

(2) MONTHLY ELIGIBILITY.—A household shall not be eligible for the refund under this section for months that the household has not established eligibility under subsection (b).

(d) DELIVERY MECHANISM.—

(1) Subject to standards and an implementation schedule set by the Administrator, the energy refund shall be provided in monthly installments via—

(A) direct deposit into the eligible household's designated bank account;

(B) the State's electronic benefit transfer system; or

(C) another Federal or State mechanism, if such a mechanism is approved by the Administrator.

(2) Such standards shall include—

(A)(i) defining the required level of recipient protection regarding privacy;

(ii) guidance on how recipients are offered choices, when relevant, about the delivery mechanism;

(iii) guidance on ease of use and access to the refund, including the prohibition of fees charged to recipients for withdrawals or other services; and

(iv) cost-effective protections against improper accessing of the energy refund;

(B) operating standards that provide for interoperability between States and law enforcement monitoring; and

(C) other standards, as determined by the Administrator or the Administrator's designee.

(e) INFORMATION ABOUT REFUND PROVIDED TO HOUSEHOLDS AND INTERNAL REVENUE SERVICE.—

(1) By January 31 of each year, for each adult that was a member of a household that received an energy refund under this section in the State during the prior calendar year, each State shall issue a form that conforms to standards established by the Secretary of the Treasury under section 36B(b) of the Internal Revenue Code of 1986, containing—

(A) the name, address, and social security number of the adult household member; and

(B) the number of months the individual was a member of a household that received an energy refund under this section.

(2) States shall provide this information to the Internal Revenue Service in accordance to standards and regulations set forth by the Secretary of the Treasury.

(f) ADMINISTRATION.—

(1) IN GENERAL.—The State agency of each participating State shall assume responsibility for the certification of applicant households and for the issuance of refunds and the control and accountability thereof.

(2) PROCEDURES.—Under standards established by the Administrator, the State agency shall establish procedures governing the administration of the Energy Refund Program that the State agency determines best serve households in the State, including households with special needs, such as households with elderly or disabled members, households in rural areas, homeless individuals, and households residing on reservations as defined in the Indian Child Welfare Act of 1978 and the Indian Financing Act of 1974. In carrying out this paragraph, a State agency—

(A) shall provide timely, accurate, and fair service to applicants for, and participants in, the Energy Refund Program;

(B) shall permit an applicant household to apply to participate in the program at the time that the household first contacts the State agency, and shall consider an application that contains the name, address, and signature of the applicant to be sufficient to constitute an application for participation;

(C) shall screen any applicant household for the Supplemental Nutrition Assistance Program, the State's medical assistance program under section XIX of the Social Security Act, State Childrens Health Insurance Program under section XXI of the Social Security Act, and a State program that provides basic assistance under a State program funded under title IV of the Social Security Act or with qualified State expenditures as defined in section 409(a)(7) of the Social Security Act for eligibility for the Energy Refund Program and, if eligible, shall enroll such applicant household in the Energy Refund Program;

(D) shall complete certification of and provide a refund to any eligible household not later than thirty days following its filing of an application;

(E) shall use appropriate bilingual personnel and materials in the administration of the program in those portions of the State in which a substantial number of members of low-income households speak a language other than English; and

(F) shall utilize State agency personnel who are employed in accordance with the current standards for a Merit System of Personnel Administration or any standards later prescribed by the Office of Personnel Management pursuant to section 208 of the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4728) modifying or superseding such standards relating to the establishment and maintenance of personnel standards on a merit basis to make all tentative and final determinations of eligibility and ineligibility.

(3) REGULATIONS.—

(A) Except as provided in subparagraph (B) the Administrator shall issue such regulations consistent with this section as the Administrator deems necessary or appropriate for the effective and efficient administration of the Energy Refund Program and shall promulgate all such regulations in accordance with the procedures set forth in section 553 of title 5, United States Code.

(B) Without regard to section 553 of title 5 of such Code, the Administrator may, during the period beginning with the effective date of this section and ending two years after such date, by rule promulgate as final any procedures that are substantially the same as the procedures governing the Supplemental Nutrition Assistance Program at 7 C.F.R. 273.2, 273.12.273.15.

(g) TREATMENT.—The value of the refund provided under this Act shall not be considered income or resources for any purpose under any Federal, State, or local laws, including, but not limited to, laws relating to an income tax, or public assistance programs (including, but not limited to, health care, cash aid, child care, nutrition programs, and housing assistance) and no participating State or political subdivision thereof shall decrease any assistance otherwise provided an individual or individuals because of the receipt of a refund under this Act.

(h) PROGRAM INTEGRITY.—For purposes of ensuring program integrity and complying with the requirements of the Improper Payment Information Act of 2002, the Administrator shall—

(1) to the maximum extent possible rely on and coordinate with the quality control sample and review procedures of section 16(c)(2), (3), (4), and (5) of the Supplemental Nutrition Assistance Program; and

(2) develop procedures to monitor the compliance with and accuracy of State agencies in providing forms to household members and the Internal Revenue Service under subsection (f).

(i) DEFINITIONS.—

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency or the head of another agency designated by the Administrator.

(2) ELECTRONIC BENEFIT TRANSFER SYSTEM.—The term "electronic benefit transfer system" means a system by which household benefits or refunds defined under subsection (d) are issued from and stored in a central databank via electronic benefit transfer cards.

(3) GROSS INCOME.—The term "gross income" means the gross income of a household that is determined in accordance with standards and procedures established under section 5 of the Food and Nutrition Act of 2008 (7 U.S.C. 2014) and its implementing regulations.

(4) HOUSEHOLD.—The term "household" means—

(A)(i) except as provided in subparagraph (C), an individual or a group of individuals who are a household under section 3(n) of the Food and Nutrition Act of 2008 (7 U.S.C. 2012(n)); and

(ii) a single individual or married couple that receive benefits under section 1860D–14 of the Social Security Act (42 U.S.C. 1395w–114).

(B) The Administrator shall establish rules for providing the energy refund in an equitable and administratively simple manner to households where the group of individuals who live together includes a combination of members described in clauses (i) and (ii) of subparagraph (A), or includes additional members not described in clause (i) or clause (ii) of subparagraph (A).

(C) The Administrator shall establish rules regarding the eligibility and delivery of the energy refund to groups of individuals described in section 3(n)(4) or (5) of the Food and Nutrition Act of 2008 (7 U.S.C. 2012(n)).

(5) POVERTY LINE.—The term "poverty line" has the meaning given the term in section 673(2) of the Community Services Block Grant Act (42 U.S.C. 9902(2)), including any revision required by that section.

(6) STATE.—The term "State" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the United States Virgin Islands, Guam, and the Commonwealth of the Northern Mariana Islands.

(7) STATE AGENCY.—The term "State agency" means an agency of State government, including the local offices thereof, that has responsibility for administration of the 1 or more federally aided public assistance programs within the State, and in those States where such assistance programs are operated on a decentralized basis, the term shall include the counterpart local agencies administering such programs.

(8) OTHER TERMS.—Other terms not defined in this Act shall have the same meaning applied in the Supplemental Nutrition Assistance Program unless the Administrator finds for good cause that application of a particular definition would be detrimental to the purposes of the Energy Refund Program.

Subtitle D—Exporting Clean Technology

SEC. 441. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress finds the following:

(1) Protecting Americans from the impacts of climate change requires global reductions in greenhouse gas emissions.

(2) Although developing countries are historically least responsible for the cumulative greenhouse gas emissions that are causing climate change and continue to have very low per capita greenhouse gas emissions, their overall greenhouse gas emissions are increasing as they seek to grow their economies and reduce energy poverty for their populations.

(3) Many developing countries lack the financial and technical resources to adopt clean energy technologies and absent assistance their greenhouse gas emissions will continue to increase.

(4) Investments in clean energy technology cooperation can substantially reduce global greenhouse gas emissions while providing developing countries with incentives to adopt policies that will address competitiveness concerns related to regulation of United States greenhouse gas emissions.

(5) Investments in clean technology in developing countries will increase demand for clean energy products, open up new markets for United States companies, spur innovation, and lower costs.

(6) Under Article 4 of the United Nations Framework Convention on Climate Change, developed country parties, including the United States, committed to "take all practicable steps to promote, facilitate, and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other parties, particularly developing country parties, to enable them to implement the provisions of the Convention".

(7) Under the Bali Action Plan, developed country parties to the United Nations Framework Convention on Climate Change, including the United States, committed to "enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation," including, inter alia, consideration of "improved access to adequate, predictable, and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country parties".

(b) PURPOSES.—The purposes of this subtitle are—

(1) to provide United States assistance and leverage private resources to encourage widespread implementation, in developing countries, of activities that reduce, sequester, or avoid greenhouse gas emissions; and

(2) to provide such assistance in a manner that—

(A) encourages such countries to adopt policies and measures, including sector-based and cross-sector policies and measures, that substantially reduce, sequester, or avoid greenhouse gas emissions; and

(B) promotes the successful negotiation of a global agreement to reduce greenhouse gas emissions under the United Nations Framework Convention on Climate Change.

SEC. 442. DEFINITIONS.

In this subtitle:

(1) ALLOWANCE.—The term "allowance" means an emission allowance established under section 721 of the Clean Air Act.

(2) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional committees" means—

(A) the Committees on Energy and Commerce, Foreign Affairs, and Financial Services of the House of Representatives; and

(B) the Committees on Environment and Public Works, Energy and Natural Resources, and Foreign Relations of the Senate.

(3) CONVENTION.—The term "Convention" means the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, and entered into force on March 21, 1994.

(4) DEVELOPING COUNTRY.—The term "developing country" means a country eligible to receive official development assistance according to the income guidelines of the Development Assistance Committee of the Organization for Economic Cooperation and Development.

(5) ELIGIBLE COUNTRY.—The term "eligible country" means a developing country that is determined by the interagency group under section 444 to be eligible to receive assistance from the International Clean Technology Account.

(6) INTERAGENCY GROUP.—The term "interagency group" means the group established by the President under section 443 to administer distributions from the International Clean Technology Account.

(7) INTERNATIONAL CLEAN TECHNOLOGY ACCOUNT.—The term "International Clean Technology Account" means the account to which the Administrator allocates allowances under section 782(o) of the Clean Air Act.

(8) LEAST DEVELOPED COUNTRY.—The term "least developed country" means a foreign country the United Nations has identified as among the least developed of developing countries.

(9) QUALIFYING ACTIVITY.—The term "qualifying activity" means an activity that meets the criteria in section 445.

(10) QUALIFYING ENTITY.—The term "qualifying entity" means a national, regional, or local government in, or a nongovernmental organization or private entity located or operating in, an eligible country.

SEC. 443. GOVERNANCE.

(a) OVERSIGHT.—The Secretary of State, or such other Federal agency head as the President may designate, in consultation with the interagency group established under subsection (b), shall oversee distributions of allowances from the International Clean Technology Account.

(b) INTERAGENCY GROUP.—The President shall establish an interagency group to administer the International Clean Technology Account. The Members of the interagency group shall include—

(1) the Secretary of State;

(2) the Administrator of the Environmental Protection Agency;

(3) the Secretary of Energy;

(4) the Secretary of the Treasury;

(5) the Administrator of the United States Agency for International Development; and

(6) any other head of a Federal agency or executive branch appointee that the President may designate.

(c) CHAIRPERSON.—The Secretary of State shall serve as the chairperson of the interagency group.

(d) SUPPLEMENT NOT SUPPLANT.—Allowances distributed from the International Clean Technology Account shall be used to supplement, and not to supplant, any other Federal, State, or local resources available to carry out activities that are qualifying activities under this subtitle.

SEC. 444. DETERMINATION OF ELIGIBLE COUNTRIES.

(a) IN GENERAL.—The interagency group shall determine a country to be an eligible country for the purposes of this subtitle if a country meets the following criteria:

(1) The country is a developing country that—

(A) has entered into an international agreement to which the United States is a party, under which such country agrees to take actions to produce measurable, reportable, and verifiable greenhouse gas emissions mitigation; or

(B) is determined by the interagency group to have in force national policies and measures that are capable of producing measurable, reportable, and verifiable greenhouse gas emissions mitigation.

(2) The country has developed a nationally appropriate mitigation strategy that seeks to achieve substantial reductions, sequestration, or avoidance of greenhouse gas emissions, relative to business-as-usual levels.

(3) Subject to subsection (b)(1), such other criteria as the President determines will serve the purposes of this subtitle or other United States national security, foreign policy, environmental, or economic objectives.

(b) EXCEPTIONS.—

(1) Subsection (a)(3) applies only to bilateral assistance under section 446(c).

(2) The eligibility criteria in this section do not apply in the case of least developed countries receiving assistance under section 445(7) for the purpose of building capacity to meet such eligibility criteria.

SEC. 445. QUALIFYING ACTIVITIES.

Assistance under this subtitle may be provided only to qualifying entities for clean technology activities (including building relevant technical and institutional capacity) that contribute to substantial, measurable, reportable, and verifiable reductions, sequestration, or avoidance of greenhouse gas emissions including—

(1) deployment of technologies to capture and sequester carbon dioxide emissions from electric generating units or large industrial sources (except that assistance under this subtitle for such deployment shall be limited to the cost of

retrofitting existing facilities with such technologies or the incremental cost of purchasing and installing such technologies at new facilities);

(2) deployment of renewable electricity generation from wind, solar, sustainably-produced biomass, geothermal, marine, or hydrokinetic sources;

(3) substantial increases in the efficiency of electricity transmission, distribution, and consumption;

(4) deployment of low- or zero emissions technologies that are facing financial or other barriers to their widespread deployment which could be addressed through support under this subtitle in order to reduce, sequester, or avoid emission;

(5) reduction in transportation sector emissions through increased transportation system and vehicle efficiency or use of transportation fuels that have lifecycle greenhouse gas emissions that are substantially lower than those attributable to fossil fuel-based alternatives;

(6) reduction in black carbon emissions; or

(7) capacity building activities, including—

(A) developing and implementing methodologies and programs for measuring and quantifying greenhouse gas emissions and verifying emissions mitigation;

(B) assessing, developing, and implementing technology and policy options for greenhouse gas emissions mitigation and avoidance of future emissions, including sector and cross-sector mitigation strategies; and

(C) providing other forms of technical assistance to facilitate the qualification for, and receipt of, assistance under this Act.

SEC. 446. ASSISTANCE.

(a) IN GENERAL.—The Secretary of State, or such other Federal agency head as the President may designate, is authorized to provide assistance, through the distribution of allowances, from the International Clean Technology Account for qualifying activities that take place in eligible countries.

(b) DISTRIBUTION OF ALLOWANCES.—

(1) IN GENERAL.—The Secretary of State, or such other Federal agency head as the President may designate, after consultation with the interagency group, shall distribute allowances from the International Clean Technology Account—

(A) in the form of bilateral assistance in accordance with paragraph (4);

(B) to multilateral funds or institutions pursuant to the Convention or an agreement negotiated under the Convention; or

(C) through some combination of the mechanisms identified in subparagraphs (A) and (B).

(2) GLOBAL ENVIRONMENT FACILITY.—For any allowances provided to the Global Environment Facility pursuant to paragraph (1)(B), the President shall designate the Secretary of the Treasury to distribute those allowances to the Global Environment Facility.

(3) DISTRIBUTION THROUGH INTERNATIONAL FUND OR INSTITUTION.—If allowances are distributed to a multilateral fund or institution, as authorized in paragraph (1), the Secretary of State, or such other Federal agency head as the President may designate, shall seek to ensure the establishment and implementation of adequate mechanisms to—

(A) apply and enforce the criteria for determination of eligible countries and qualifying activities under sections 444 and 445, respectively; and

(B) require public reporting describing the process and methodology for selecting the ultimate recipients of assistance and a description of each activity that received assistance, including the amount of obligations and expenditures for assistance.

(4) BILATERAL ASSISTANCE.—

(A) IN GENERAL.—Bilateral assistance under paragraph (1) shall be carried out by the Administrator of the United States Agency for International Development, in consultation with the interagency group.

(B) LIMITATIONS.—Not more than 15 percent of allowances made available to carry out bilateral assistance under this subtitle in any year shall be distributed to support activities in any single country.

(C) SELECTION CRITERIA.—Not later than 2 years after the date of enactment of this subtitle, the Administrator of the United States Agency for International Development, after consultation with the interagency group, shall develop and publish a set of criteria to be used in evaluating activities within eligible countries for bilateral assistance under this subtitle.

(D) CRITERIA REQUIREMENTS.—The criteria under subparagraph (C) shall require that—

(i) the activity is a qualifying activity;

(ii) the activity will be conducted as part of an eligible country's nationally appropriate mitigation strategy or as part of an eligible country's actions towards providing a nationally appropriate mitigation strategy to reduce, sequester, or avoid emissions being implemented by the eligible country;

(iii) the activity will not have adverse effects on human health, safety, or welfare, the environment, or natural resources;

(iv) any technologies deployed through bilateral assistance under this subtitle will be properly implemented and maintained;

(v) the activity will not cause any net loss of United States jobs or displacement of United States production;

(vi) costs of the activity will be shared by the host country government, private sector parties, or a multinational development bank, except that this clause does not apply to least developed countries; and

(vii) the activity meets such other requirements as the interagency group determines appropriate to further the purposes of this subtitle.

(E) CRITERIA PREFERENCES.—The criteria under subparagraph (C) shall give preference to activities that—

(i) promise to achieve large-scale greenhouse gas reductions, sequestration, or avoidance at a national, sectoral or cross-sectoral level;

(ii) have the potential to catalyze a shift within the host country towards widespread deployment of low- or zero-carbon energy technologies;

(iii) build technical and institutional capacity and other activities that are unlikely to be attractive to private sector funding; or

(iv) maximize opportunities to leverage other sources of assistance and catalyze private-sector investment.

(c) MONITORING, EVALUATION, AND ENFORCEMENT.—The Secretary of State, or such other Federal agency head as the President may designate, in consultation with the interagency group, shall establish and implement a system to monitor and evaluate the performance of activities receiving assistance under this subtitle. The Secretary of State, or such other Federal agency head as the President may designate, shall have the authority to suspend or terminate assistance in whole or in part for an activity if it is determined that the activity is not operating in compliance with the approved proposal.

(d) COORDINATION WITH U.S. FOREIGN ASSISTANCE.—Subject to the direction of the President, the Secretary of State shall, to the extent practicable, seek to align activities under this section with broader development, poverty alleviation, or natural resource management objectives and initiatives in the recipient country.

(e) ANNUAL REPORTS.—Not later than March 1, 2012, and annually thereafter, the President shall submit to the appropriate congressional committees a report on the assistance provided under this subtitle during the prior fiscal year. Such report shall include—

(1) a description of the amount and value of allowances distributed during the prior fiscal year;

(2) a description of each activity that received assistance during the prior fiscal year, and a description of the anticipated and actual outcomes;

(3) an assessment of any adverse effects to human health, safety, or welfare, the environment, or natural resources as a result of activities supported under this subtitle;

(4) an assessment of the success of the assistance provided under this subtitle to improving the technical and institutional capacity to implement substantial emissions reductions; and

(5) an estimate of the greenhouse gas emissions reductions, sequestration, or avoidance achieved by assistance provided under this subtitle during the prior fiscal year.

Subtitle E—Adapting to Climate Change

PART 1—DOMESTIC ADAPTATION

Subpart A—National Climate Change Adaptation Program

SEC. 451. NATIONAL CLIMATE CHANGE ADAPTATION PROGRAM.

The President shall establish within the United States Global Change Research Program a National Climate Change Adaptation Program for the purpose of increasing the overall effectiveness of Federal climate change adaptation efforts.

SEC. 452. CLIMATE SERVICES.

The Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration (NOAA), shall establish within NOAA a National Climate Service to develop climate information, data, forecasts, and warnings at national and regional scales, and to distribute information related to climate impacts to State, local, and tribal governments and the public to facilitate the development and implementation of strategies to reduce society's vulnerability to climate variability and change.

SEC. 453. STATE PROGRAMS TO BUILD RESILIENCE TO CLIMATE CHANGE IMPACTS.

(a) DISTRIBUTION OF ALLOWANCES.—

(1) IN GENERAL.—Not later than September 30, 2012, and annually thereafter through 2050, the Administrator shall distribute allowances allocated for purposes of this subpart pursuant to section 782 of the Clean Air Act ratably among the State governments based on the product of—

(A) each State's population; and

(B) each State's allocation factor as determined under paragraph (2).

(2) STATE ALLOCATION FACTORS.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the allocation factor for a State shall be the quotient of—

(i) the per capita income of all individuals in the United States, divided by

(ii) the per capita income of all individuals in such State.

(B) LIMITATION.—If the allocation factor for a State as calculated under subparagraph (A) would exceed 1.2, then the allocation factor for such State shall be 1.2. If the allocation factor for a State as calculated under subparagraph (A) would be less than 0.8, then the allocation factor for such State shall be 0.8.

(C) PER CAPITA INCOME.—For purposes of this paragraph, per capita income shall be—

(i) determined at 2-year intervals; and

(ii) subject to subparagraph (D), equal to the average of the annual per capita incomes for the most recent period of 3 consecutive years for which satisfactory data are available from the Department of Commerce at the time such determination is made.

(D) REVENUE DIRECTLY RESULTING FROM A PRESIDENTIALLY DECLARED MAJOR DISASTER.—For purposes of this paragraph, per capita income from one or more of the following sources shall be reduced or excluded if the Secretary of Commerce (in consultation with the Administrator and the secretaries or administrators of the departments or agencies involved) determines that the income accrues to persons as the result of a Major Disaster (as declared by the President of the United States) and if the Secretary finds that the inclusion of one or more of these income sources, in whole or in part, results in a transitory, rather than a sustainable, increase in a State's per capita income level relative to the national average:

(i) Property and casualty insurance (including homeowners and renters insurance).

(ii) The National Flood Insurance Program of the Federal Emergency Management Agency .

(iii) The Individual and Family Grants Program of the Federal Emergency Management Agency.

(iv) The Disaster Housing Program of the Federal Emergency Management Agency.

(v) The Community Development Block Grant Program of the Department of Housing and Urban Development.

(vi) The Disaster Unemployment Assistance Program of the Department of Labor.

(vii) Any other source determined appropriate by the Administrator.

(b) SALE OF ALLOWANCES.—Each State receiving emission allowances under this section shall sell such allowances within 1 year of receipt, either directly or through consignment to the Administrator for auction. States shall deposit the proceeds of such sales within the State Energy and Environment Development (SEED) Fund established pursuant to section 131 of this Act . Emission allowances distributed under this section that are not sold within 1 year of receipt by a State shall be returned to the Administrator, who shall distribute such allowances to the remaining States ratably in accordance with the formula in subsection (a).

(c) USE OF PROCEEDS.—States shall, in accordance with a State climate adaptation plan approved pursuant to subsection (e), use the proceeds of sales of emission allowances distributed under this section exclusively for the implementation of

projects, programs, or measures to build resilience to the impacts of climate change, including—

(1) extreme weather events such as flooding and tropical cyclones;
(2) more frequent heavy precipitation events;
(3) water scarcity and adverse impacts on water quality;
(4) stronger and longer heat waves;
(5) more frequent and severe droughts;
(6) rises in sea level;
(7) ecosystem disruption;
(8) increased air pollution; and
(9) effects on public health.

(d) PRIORITY IN PROJECTS TO REDUCE FLOOD EVENTS.—When implementing any project, program, or measure funded under this section and designed to reduce flood events, a State should consider prioritizing projects that seek to—

(1) mitigate the destructive impacts of climate-related increases in the duration, frequency, or magnitude of rainfall or runoff, including snowmelt runoff, as well as hurricanes;
(2) improve flood protection for densely populated urban areas; and
(3) mitigate the destructive impact of ocean-related climate change effects, including effects on bays, estuaries, populated barrier islands and other ocean-related features, through a variety of means and measures, including the construction of jetties, levies, and other coastal structures in densely populated coastal areas impacted by climate change.

(e) STATE CLIMATE ADAPTATION PLANS.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Administrator, or such other Federal agency head or heads as the President may designate, shall promulgate regulations establishing requirements for submission and approval of State climate adaptation plans under this section. Receipt of emission allowances pursuant to this section shall be contingent on approval of a State climate adaptation plan meeting the requirements of such guidelines.

(2) REQUIREMENTS.—Regulations promulgated under this subsection shall require, at minimum, that—

(A) State climate adaptation plans assess and prioritize the State's vulnerability to a broad range of impacts of climate change, based on the best available science;
(B) State climate adaptation plans include an assessment of potential for carbon reduction through changes to land management policies (including enhancement, or protection, of forest carbon sinks);
(C) State climate adaptation plans identify and prioritize specific cost-effective projects, programs, and measures to build resilience to predicted impacts of climate change;
(D) State climate adaptation plans ensure that the State fully considers and undertakes, to the maximum extent practicable, initiatives that—

(i) protect or enhance natural ecosystem functions, including protection, maintenance, or restoration of natural infrastructure such as wetlands, reefs, and barrier islands to buffer communities from floodwaters or storms, watershed protection to maintain water quality and groundwater recharge, or floodplain restoration to improve natural flood control capacity; or
(ii) use non-structural approaches including practices that utilize, enhance, or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration, and reuse;

(E) in order to be eligible to receive emission allowances under this section, a State shall submit a revised State climate adaptation plan for approval not less frequently than every 5 years; and
(F) State climate adaptation plans be consistent with Federal conservation and environmental laws and, to the maximum extent practicable, avoid environmental degradation.

(3) COORDINATION WITH PRIOR PLANNING EFFORTS.—In promulgating regulations under this subsection, the Administrator, or such other Federal agency head or heads as the President may designate, shall—

(A) draw upon lessons learned and best practices from preexisting State climate adaptation planning efforts;
(B) seek to avoid duplication of such efforts; and
(C) ensure that the plans developed under this section reflect and are fully consistent with State natural resources adaptation plans developed under section 479.

(f) REPORTING.—Each State receiving emission allowances under this section shall submit to the Administrator, or such other Federal agency head or heads as the President may designate, within 12 months after each receipt of such allowances and once every 2 years thereafter until the proceeds from the sale of emission allowances received under this section are fully expended, a report that—

(1) provides a full accounting for the State's use of proceeds of sales of emission allowances distributed under this section, including a description of the projects, programs, or measures funded through such proceeds;

(2) includes a report prepared by an independent third party, in accordance with such regulations as are promulgated by the Administrator or such other Federal agency head or heads as the President may designate, evaluating the performance of the projects, programs, or measures funded under this section; and

(3) identifies any use by the State of proceeds of sales of emission allowances distributed under this section for the reduction of flood and storm damage and the effects of climate change on water and flood protection infrastructure.

(g) ENFORCEMENT.—If the Administrator, or such other Federal agency head or heads as the President may designate, determines that a State is not in compliance with this section, the Administrator may withhold a portion of the allowances, the value of which is equal to up to twice the value of the allowances that the State failed to use in accordance with the requirements of this section, that such State would otherwise be eligible to receive under this section in 1 or more later years. Allowances withheld pursuant to this subsection shall be distributed among the remaining States ratably in accordance with the formula in subsection (a).

(h) SUPPLEMENT, NOT SUPPLANT.—It is the intent of the Congress that emission allowances distributed to carry out this subpart should be used to supplement, and not replace, existing sources of funding used to build resilience to the impacts of climate change identified in subsection (c).

Subpart B—Public Health and Climate Change

SEC. 461. SENSE OF CONGRESS ON PUBLIC HEALTH AND CLIMATE CHANGE.

It is the sense of the Congress that the Federal Government, in cooperation with international, State, tribal, and local governments, concerned public and private organizations, and citizens, should use all practicable means and measures—

(1) to assist the efforts of public health and health care professionals, first responders, States, tribes, municipalities, and local communities to incorporate measures to prepare health systems to respond to the impacts of climate change;

(2) to ensure—

(A) that the Nation's health professionals have sufficient information to prepare for and respond to the adverse health impacts of climate change;

(B) the utility and value of scientific research in advancing understanding of—

(i) the health impacts of climate change; and

(ii) strategies to prepare for and respond to the health impacts of climate change;

(C) the identification of communities vulnerable to the health effects of climate change and the development of strategic response plans to be carried out by health professionals for those communities;

(D) the improvement of health status and health equity through efforts to prepare for and respond to climate change; and

(E) the inclusion of health policy in the development of climate change responses;

(3) to encourage further research, interdisciplinary partnership, and collaboration among stakeholders in order to—

(A) understand and monitor the health impacts of climate change; and

(B) improve public health knowledge and response strategies to climate change;

(4) to enhance preparedness activities, and public health infrastructure, relating to climate change and health;

(5) to encourage each and every American to learn about the impacts of climate change on health; and

(6) to assist the efforts of developing nations to incorporate measures to prepare health systems to respond to the impacts of climate change.

SEC. 462. RELATIONSHIP TO OTHER LAWS.

Nothing in this subpart in any manner limits the authority provided to or responsibility conferred on any Federal department or agency by any provision of any law (including regulations) or authorizes any violation of any provision of any law (including regulations), including any health, energy, environmental, transportation, or any other law or regulation.

SEC. 463. NATIONAL STRATEGIC ACTION PLAN.

(a) REQUIREMENT.—

(1) IN GENERAL.—The Secretary of Health and Human Services, within 2 years after the date of the enactment of this Act, on the basis of the best available science, and in consultation pursuant to paragraph (2), shall publish a strategic action plan to assist health professionals in preparing for and responding to the impacts of climate change on public health in the United States and other nations, particularly developing nations.

(2) CONSULTATION.—In developing or making any revision to the national strategic action plan, the Secretary shall—

(A) consult with the Director of the Centers for Disease Control and Prevention, the Administrator of the Environmental Protection Agency, the Director of the National Institutes of Health, the Secretary of Energy, other appropriate Federal agencies, Indian tribes, State and local governments, public health organizations, scientists, and other interested stakeholders; and

(B) provide opportunity for public input.

(b) CONTENTS.—

(1) IN GENERAL.—The Secretary, acting through the Director of the Centers for Disease Control and Prevention and other appropriate Federal agencies, shall assist health professionals in preparing for and responding effectively and efficiently to the health effects of climate change through measures including—

(A) developing, improving, integrating, and maintaining domestic and international disease surveillance systems and monitoring capacity to respond to health-related effects of climate change, including on topics addressing—

(i) water, food, and vector borne infectious diseases and climate change;

(ii) pulmonary effects, including responses to aeroallergens;

(iii) cardiovascular effects, including impacts of temperature extremes;

(iv) air pollution health effects, including heightened sensitivity to air pollution;

(v) hazardous algal blooms;

(vi) mental and behavioral health impacts of climate change;

(vii) the health of refugees, displaced persons, and vulnerable communities;

(viii) the implications for communities vulnerable to health effects of climate change, as well as strategies for responding to climate change within these communities; and

(ix) local and community-based health interventions for climate-related health impacts;

(B) creating tools for predicting and monitoring the public health effects of climate change on the international, national, regional, State, and local levels, and providing technical support to assist in their implementation;

(C) developing public health communications strategies and interventions for extreme weather events and disaster response situations;

(D) identifying and prioritizing communities and populations vulnerable to the health effects of climate change, and determining actions and communication strategies that should be taken to inform and protect these communities and populations from the health effects of climate change;

(E) developing health communication, public education, and outreach programs aimed at public health and health care professionals, as well as the general public, to promote preparedness and response strategies relating to climate change and public health, including the identification of greenhouse gas reduction behaviors that are health-promoting; and

(F) developing academic and regional centers of excellence devoted to—

(i) researching relationships between climate change and health;

(ii) expanding and training the public health workforce to strengthen the capacity of such workforce to respond to and prepare for the health effects of climate change;

(iii) creating and supporting academic fellowships focusing on the health effects of climate change; and

(iv) training senior health ministry officials from developing nations to strengthen the capacity of such nations to—

(I) prepare for and respond to the health effects of climate change; and

(II) build an international network of public health professionals with the necessary climate change knowledge base;

(G) using techniques, including health impact assessments, to assess various climate change public health preparedness and response strategies on international, national, State, regional, tribal, and local levels, and make recommendations as to those strategies that best protect the public health;

(H)(i) assisting in the development, implementation, and support of State, regional, tribal, and local preparedness, communication, and response plans (including with respect to the health departments of such entities) to anticipate and reduce the health threats of climate change; and

(ii) pursuing collaborative efforts to develop, integrate, and implement such plans;

(I) creating a program to advance research as it relates to the effects of climate change on public health across Federal agencies, including research to—

(i) identify and assess climate change health effects preparedness and response strategies;

(ii) prioritize critical public health infrastructure projects related to potential climate change impacts that affect public health; and

(iii) coordinate preparedness for climate change health impacts, including the development of modeling and forecasting tools;

(J) providing technical assistance for the development, implementation, and support of preparedness and response plans to anticipate and reduce the health threats of climate change in developing nations; and

(K) carrying out other activities determined appropriate by the Secretary to plan for and respond to the impacts of climate change on public health.

(c) REVISION.—The Secretary shall revise the national strategic action plan not later than July 1, 2014, and every 4 years thereafter, to reflect new information collected pursuant to implementation of the national strategic action plan and otherwise, including information on—

(1) the status of critical environmental health parameters and related human health impacts;

(2) the impacts of climate change on public health; and

(3) advances in the development of strategies for preparing for and responding to the impacts of climate change on public health.

(d) IMPLEMENTATION.—

(1) IMPLEMENTATION THROUGH HHS.—The Secretary shall exercise the Secretary's authority under this subpart and other provisions of Federal law to achieve the goals and measures of the national strategic action plan.

(2) OTHER PUBLIC HEALTH PROGRAMS AND INITIATIVES.—The Secretary and Federal officials of other relevant Federal agencies shall administer public health programs and initiatives authorized by provisions of law other than this subpart, subject to the requirements of such statutes, in a manner designed to achieve the goals of the national strategic action plan.

(3) CDC.—In furtherance of the national strategic action plan, the Secretary, acting through the Director of the Centers for Disease Control and Prevention and the head of any other appropriate Federal agency, shall—

(A) conduct scientific research to assist health professionals in preparing for and responding to the impacts of climate change on public health; and

(B) provide funding for—

(i) research on the health effects of climate change; and

(ii) preparedness planning on the international, national, State, regional, and local levels to respond to or reduce the burden of health effects of climate change; and

(C) carry out other activities determined appropriate by the Director or the head of such agency to prepare for and respond to the impacts of climate change on public health.

SEC. 464. ADVISORY BOARD.

(a) ESTABLISHMENT.—The Secretary shall establish a permanent science advisory board comprised of not less than 10 and not more than 20 members.

(b) APPOINTMENT OF MEMBERS.—The Secretary shall appoint the members of the science advisory board from among individuals—

(1) who have expertise in public health and human services, climate change, and other relevant disciplines; and

(2) at least ½ of whom are recommended by the President of the National Academy of Sciences.

(c) FUNCTIONS.—The science advisory board shall—

(1) provide scientific and technical advice and recommendations to the Secretary on the domestic and international impacts of climate change on public health, populations and regions particularly vulnerable to the effects of climate change, and strategies and mechanisms to prepare for and respond to the impacts of climate change on public health; and

(2) advise the Secretary regarding the best science available for purposes of issuing the national strategic action plan.

SEC. 465. REPORTS.

(a) NEEDS ASSESSMENT.—

(1) IN GENERAL.—The Secretary shall seek to enter into, by not later than 6 months after the date of the enactment of this Act, an agreement with the National Research Council and the Institute of Medicine to complete a report that—

(A) assesses the needs for health professionals to prepare for and respond to climate change impacts on public health; and

(B) recommends programs to meet those needs.

(2) SUBMISSION.—The agreement under paragraph (1) shall require the completed report to be submitted to the Congress and the Secretary and made publicly available not later than 1 year after the date of the agreement.

(b) CLIMATE CHANGE HEALTH PROTECTION AND PROMOTION REPORTS.—

(1) IN GENERAL.—The Secretary, in consultation with the advisory board established under section 464, shall ensure the issuance of reports to aid health professionals in preparing for and responding to the adverse health effects of climate change that—

(A) review scientific developments on health impacts of climate change; and

(B) recommend changes to the national strategic action plan.

(2) SUBMISSION.—The Secretary shall submit the reports required by paragraph (1) to the Congress and make such reports publicly available not later than July 1, 2013, and every 4 years thereafter.

SEC. 466. DEFINITIONS.

In this subpart:

(1) HEALTH IMPACT ASSESSMENT.—The term "health impact assessment" means a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.

(2) NATIONAL STRATEGIC ACTION PLAN.—The term "national strategic action plan" means the plan issued and revised under section 463.

(3) SECRETARY.—Unless otherwise specified, the term "Secretary" means the Secretary of Health and Human Services.

SEC. 467. CLIMATE CHANGE HEALTH PROTECTION AND PROMOTION FUND.

(a) ESTABLISHMENT OF FUND.—There is hereby established in the Treasury a separate account that shall be known as the Climate Change Health Protection and Promotion Fund.

(b) AVAILABILITY OF AMOUNTS.—All amounts deposited into the Climate Change Health Protection and Promotion Fund shall be available to the Secretary to carry out this subpart subject to further appropriation.

(c) DISTRIBUTION OF FUNDS BY HHS.—In carrying out this subpart, the Secretary may make funds deposited in the Climate Change Health Protection and Promotion Fund available to—

(1) other departments, agencies, and offices of the Federal Government;

(2) foreign, State, tribal, and local governments; and

(3) such other entities as the Secretary determines appropriate.

(d) SUPPLEMENT, NOT REPLACE.—It is the intent of Congress that funds made available to carry out this subpart should be used to supplement, and not replace, existing sources of funding for public health.

Subpart C—Natural Resource Adaptation

SEC. 471. PURPOSES.

The purposes of this subpart are to—

(1) establish an integrated Federal program to protect, restore, and conserve the Nation's natural resources in response to the threats of climate change and ocean acidification; and

(2) provide financial support and incentives for programs, strategies, and activities that protect, restore, and conserve the Nation's natural resources in response to the threats of climate change and ocean acidification.

SEC. 472. NATURAL RESOURCES CLIMATE CHANGE ADAPTATION POLICY.

It is the policy of the Federal Government, in cooperation with State and local governments, Indian tribes, and other interested stakeholders to use all practicable means and measures to protect, restore, and conserve natural resources to enable them to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification.

SEC. 473. DEFINITIONS.

In this subpart:

(1) COASTAL STATE.—The term "coastal State" has the meaning given the term in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453).

(2) CORRIDORS.—The term "corridors" means areas that provide connectivity, over different time scales (including seasonal or longer), of habitat or potential habitat and that facilitate the ability of terrestrial, marine, estuarine, and freshwater fish, wildlife, or plants to move within a landscape as needed for migration, gene flow, or dispersal, or in response to the impacts of climate change and ocean acidification or other impacts.

(3) ECOLOGICAL PROCESSES.—The term "ecological processes" means biological, chemical, or physical interaction between the biotic and abiotic components of an ecosystem and includes—

(A) nutrient cycling;

(B) pollination;

(C) predator-prey relationships;

(D) soil formation;

(E) gene flow;

(F) disease epizootiology;

(G) larval dispersal and settlement;

(H) hydrological cycling;

(I) decomposition; and

(J) disturbance regimes such as fire and flooding.

(4) HABITAT.—The term "habitat" means the physical, chemical, and biological properties that are used by fish, wildlife, or plants for growth, reproduction, survival, food, water, and cover, on a tract of land, in a body of water, or in an area or region.

(5) INDIAN TRIBE.—The term "Indian tribe" has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(6) NATURAL RESOURCES.—The term "natural resources" means the terrestrial, freshwater, estuarine, and marine fish, wildlife, plants, land, water, habitats, and ecosystems of the United States.

(7) NATURAL RESOURCES ADAPTATION.—The term "natural resources adaptation" means the protection, restoration, and conservation of natural resources to enable them to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification.

(8) RESILIENCE.—Each of the terms "resilience" and "resilient" means the ability to resist or recover from disturbance and preserve diversity, productivity, and sustainability.

(9) STATE.—The term "State" means—

(A) a State of the United States;

(B) the District of Columbia; and

(C) the Commonwealth of Puerto Rico, Guam, the United States Virgin Islands, the Northern Mariana Islands, and American Samoa.

SEC. 474. COUNCIL ON ENVIRONMENTAL QUALITY.

The Chair of the Council on Environmental Quality shall—

(1) advise the President on implementation and development of—

(A) a Natural Resources Climate Change Adaptation Strategy required under section 476; and

(B) Federal natural resource agency adaptation plans required under section 478;

(2) serve as the Chair of the Natural Resources Climate Change Adaptation Panel established under section 475; and

(3) coordinate Federal agency strategies, plans, programs, and activities related to protecting, restoring, and maintaining natural resources to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification.

SEC. 475. NATURAL RESOURCES CLIMATE CHANGE ADAPTATION PANEL.

(a) ESTABLISHMENT.—Not later than 90 days after the date of the enactment of this subpart, the President shall establish a Natural Resources Climate Change Adaptation Panel, consisting of—

(1) the head, or their designee, of each of—

(A) the National Oceanic and Atmospheric Administration;
(B) the Forest Service;
(C) the National Park Service;
(D) the United States Fish and Wildlife Service;
(E) the Bureau of Land Management;
(F) the United States Geological Survey;
(G) the Bureau of Reclamation;
(H) the Bureau of Indian Affairs;
(I) the Environmental Protection Agency; and
(J) the Army Corps of Engineers;

(2) the Chair of the Council on Environmental Quality; and

(3) the heads of such other Federal agencies or departments with jurisdiction over natural resources of the United States, as determined by the President.

(b) FUNCTIONS.—The Panel shall serve as a forum for interagency consultation on and the coordination of the development and implementation of a national Natural Resources Climate Change Adaptation Strategy required under section 476.

(c) CHAIR.—The Chair of the Council on Environmental Quality shall serve as the Chair of the Panel.

SEC. 476. NATURAL RESOURCES CLIMATE CHANGE ADAPTATION STRATEGY.

(a) IN GENERAL.—Not later than one year after the date of the enactment of this subpart, the President, through the Natural Resources Climate Change Adaptation Panel established under section 475, shall develop a Natural Resources Climate Change Adaptation Strategy to protect, restore, and conserve natural resources to enable them to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification and to identify opportunities to mitigate those impacts.

(b) DEVELOPMENT AND REVISION.—In developing and revising the Strategy, the Panel shall—

(1) base the strategy on the best available science;

(2) develop the strategy in close cooperation with States and Indian tribes;

(3) coordinate with other Federal agencies as appropriate;

(4) consult with local governments, conservation organizations, scientists, and other interested stakeholders;

(5) provide public notice and opportunity for comment; and

(6) review and revise the Strategy every 5 years to incorporate new information regarding the impacts of climate change and ocean acidification on natural resources and advances in the development of strategies for becoming more resilient and adapting to those impacts.

(c) CONTENTS.—The National Resources Adaptation Strategy shall include—

(1) an assessment of the vulnerability of natural resources to climate change and ocean acidification, including the short-term, medium-term, long-term, cumulative, and synergistic impacts;

(2) a description of current research, observation, and monitoring activities at the Federal, State, tribal, and local level related to the impacts of climate change and ocean acidification on natural resources, as well as identification of research and data needs and priorities;

(3) identification of natural resources that are likely to have the greatest need for protection, restoration, and conservation because of the adverse effects of climate change and ocean acidification;

(4) specific protocols for integrating climate change and ocean acidification adaptation strategies and activities into the conservation and management of natural resources by Federal departments and agencies to ensure consistency across agency jurisdictions and resources;

(5) specific actions that Federal departments and agencies shall take to protect, conserve, and restore natural resources to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification, including a timeline to implement those actions;

(6) specific mechanisms for ensuring communication and coordination among Federal departments and agencies, and between Federal departments and agen-

cies and State natural resource agencies, United States territories, Indian tribes, private landowners, conservation organizations, and other nations that share jurisdiction over natural resources with the United States;

(7) specific actions to develop and implement consistent natural resources inventory and monitoring protocols through interagency coordination and collaboration; and

(8) a process for guiding the development of detailed agency- and department-specific adaptation plans required under section 478 to address the impacts of climate change and ocean acidification on the natural resources in the jurisdiction of each agency.

(d) IMPLEMENTATION.—Consistent with its authorities under other laws and with Federal trust responsibilities with respect to Indian lands, each Federal department or agency with representation on the National Resources Climate Change Adaptation Panel shall consider the impacts of climate change and ocean acidification and integrate the elements of the strategy into agency plans, environmental reviews, programs, and activities related to the conservation, restoration, and management of natural resources.

SEC. 477. NATURAL RESOURCES ADAPTATION SCIENCE AND INFORMATION.

(a) COORDINATION.—Not later than 90 days after the date of the enactment of this subpart, the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration, and the Secretary of the Interior, acting through the Director of the United States Geological Survey, shall establish a coordinated process for developing and providing science and information needed to assess and address the impacts of climate change and ocean acidification on natural resources. The process shall be led by the National Climate Change and Wildlife Science Center established within the United States Geological Survey under subsection (d) and the National Climate Service of the National Oceanic and Atmospheric Administration.

(b) FUNCTIONS.—The Secretaries shall ensure that such process avoids duplication and that the National Oceanic and Atmospheric Administration and the United States Geological Survey shall—

(1) provide technical assistance to Federal departments and agencies, State and local governments, Indian tribes, and interested private landowners in their efforts to assess and address the impacts of climate change and ocean acidification on natural resources;

(2) conduct and sponsor research and provide Federal departments and agencies, State and local governments, Indian tribes, and interested private landowners with research products, decision and monitoring tools and information, to develop strategies for assisting natural resources to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification; and

(3) assist Federal departments and agencies in the development of the adaptation plans required under section 478.

(c) SURVEY.—Not later than one year after the date of enactment of this subpart and every 5 years thereafter, the Secretary of Commerce and the Secretary of the Interior shall undertake a climate change and ocean acidification impact survey that—

(1) identifies natural resources considered likely to be adversely affected by climate change and ocean acidification;

(2) includes baseline monitoring and ongoing trend analysis;

(3) uses a stakeholder process to identify and prioritize needed monitoring and research that is of greatest relevance to the ongoing needs of natural resource managers to address the impacts of climate change and ocean acidification; and

(4) identifies decision tools necessary to develop strategies for assisting natural resources to become more resilient and adapt to and withstand the impacts of climate change and ocean acidification.

(d) NATIONAL CLIMATE CHANGE AND WILDLIFE SCIENCE CENTER.—

(1) ESTABLISHMENT.—The Secretary of the Interior shall establish the National Climate Change and Wildlife Science Center within the United States Geological Survey.

(2) FUNCTIONS.—The Center shall, in collaboration with Federal and State natural resources agencies and departments, Indian tribes, universities, and other partner organizations—

(A) assess and synthesize current physical and biological knowledge and prioritize scientific gaps in such knowledge in order to forecast the ecological impacts of climate change on fish and wildlife at the ecosystem, habitat, community, population, and species levels;

(B) develop and improve tools to identify, evaluate, and, where appropriate, link scientific approaches and models for forecasting the impacts of climate change and adaptation on fish, wildlife, plants, and their habitats, including monitoring, predictive models, vulnerability analyses, risk assessments, and decision support systems to help managers make informed decisions;

(C) develop and evaluate tools to adaptively manage and monitor the effects of climate change on fish and wildlife at national, regional, and local scales; and

(D) develop capacities for sharing standardized data and the synthesis of such data.

(e) SCIENCE ADVISORY BOARD.—

(1) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this subpart, the Secretary of Commerce and the Secretary of the Interior shall establish and appoint the members of a Science Advisory Board, to be comprised of not fewer than 10 and not more than 20 members—

(A) who have expertise in fish, wildlife, plant, aquatic, and coastal and marine biology, ecology, climate change, ocean acidification, and other relevant scientific disciplines;

(B) who represent a balanced membership among Federal, State, Indian tribes, and local representatives, universities, and conservation organizations; and

(C) at least ½ of whom are recommended by the President of the National Academy of Sciences.

(2) DUTIES.—The Science Advisory Board shall—

(A) advise the Secretaries on the state-of-the-science regarding the impacts of climate change and ocean acidification on natural resources and scientific strategies and mechanisms for protecting, restoring, and conserving natural resources to enable them to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification; and

(B) identify and recommend priorities for ongoing research needs on such issues.

(3) COLLABORATION.—The Science Advisory Board shall collaborate with other climate change and ecosystem research entities in other Federal agencies and departments.

(4) AVAILABILITY TO THE PUBLIC.—The advice and recommendations of the Science Advisory Board shall be made available to the public.

SEC. 478. FEDERAL NATURAL RESOURCE AGENCY ADAPTATION PLANS.

(a) DEVELOPMENT.—Not later than 1 year after the date of the development of a Natural Resources Climate Change Adaptation Strategy under section 476, each department or agency that has a representative on the Natural Resources Climate Change Adaptation Panel established under section 475 shall—

(1) complete an adaptation plan for that department or agency, respectively, implementing the Natural Resources Climate Change Adaptation Strategy under section 476 and consistent with the Natural Resources Climate Change Adaptation Policy under section 472, detailing the department's or agency's current and projected efforts to address the potential impacts of climate change and ocean acidification on natural resources within the department's or agency's jurisdiction and necessary additional actions, including a timeline for implementation of those actions;

(2) provide opportunities for review and comment on that adaptation plan by the public, including in the case of a plan by the Bureau of Indian Affairs, review by Indian tribes; and

(3) submit such plan to the President for approval.

(b) REVIEW BY PRESIDENT AND SUBMISSION TO CONGRESS.—

(1) REVIEW BY PRESIDENT.—The President shall—

(A) approve an adaptation plan submitted under subsection (a)(3) if the plan meets the requirements of subsection (c) and is consistent with the strategy developed under section 476;

(B) decide whether to approve the plan within 60 days after submission; and

(C) if the President disapproves a plan, direct the department or agency to submit a revised plan to the President under subsection (a)(3) within 60 days after such disapproval.

(2) SUBMISSION TO CONGRESS.—Not later than 30 days after the date of approval of such adaptation plan by the President, the department or agency shall submit the approved plan to the Committee on Natural Resources of the House

of Representatives, the Committee on Energy and Natural Resources of the Senate, and the committees of the House of Representatives and the Senate with principal jurisdiction over the department or agency.

(c) REQUIREMENTS.—Each adaptation plan shall—

(1) establish programs for assessing the current and future impacts of climate change and ocean acidification on natural resources within the department's or agency's, respectively, jurisdiction, including cumulative and synergistic effects, and for identifying and monitoring those natural resources that are likely to be adversely affected and that have need for conservation;

(2) identify and prioritize the department's or agency's strategies and specific conservation actions to address the current and future impacts of climate change and ocean acidification on natural resources within the scope of the department's or agency's jurisdiction and to develop and implement strategies to protect, restore, and conserve such resources to become more resilient, adapt to, and better withstand those impacts, including—

(A) the protection, restoration, and conservation of terrestrial, marine, estuarine, and freshwater habitats and ecosystems;

(B) the establishment of terrestrial, marine, estuarine, and freshwater habitat linkages and corridors;

(C) the restoration and conservation of ecological processes;

(D) the protection of a broad diversity of native species of fish, wildlife, and plant populations across their range; and

(E) the protection of fish, wildlife, and plant health, recognizing that climate can alter the distribution and ecology of parasites, pathogens, and vectors;

(3) describe how the department or agency will integrate such strategies and conservation activities into plans, programs, activities, and actions of the department or agency, related to the conservation and management of natural resources and establish new plans, programs, activities, and actions as necessary;

(4) establish methods for assessing the effectiveness of strategies and conservation actions taken to protect, restore, and conserve natural resources to enable them to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification, and for updating those strategies and actions to respond to new information and changing conditions;

(5) include a description of current and proposed mechanisms to enhance cooperation and coordination of natural resources adaptation efforts with other Federal agencies, State and local governments, Indian tribes, and nongovernmental stakeholders;

(6) include specific written guidance to resource managers to—

(A) explain how managers are expected to address the effects of climate change and ocean acidification;

(B) identify how managers are to obtain any site-specific information that may be necessary; and

(C) reflect best practices shared among relevant agencies, while also recognizing the unique missions, objectives, and responsibilities of each agency; and

(7) identify and assess data and information gaps necessary to develop natural resources adaptation plans and strategies.

(d) IMPLEMENTATION.—

(1) IN GENERAL.—Upon approval by the President, each department or agency that serves on the Natural Resources Climate Change Adaptation Panel shall implement its adaptation plan through existing and new plans, policies, programs, activities, and actions to the extent not inconsistent with existing authority.

(2) CONSIDERATION OF IMPACTS.—

(A) IN GENERAL.—To the maximum extent practicable and consistent with applicable law, every natural resource management decision made by the department or agency shall consider the impacts of climate change and ocean acidification on those natural resources.

(B) GUIDANCE.—The Council on Environmental Quality shall issue guidance for Federal departments and agencies for considering those impacts.

(e) REVISION AND REVIEW.—Not less than every 5 years, each adaptation plan under this section shall be reviewed and revised to incorporate the best available science and other information regarding the impacts of climate change and ocean acidification on natural resources.

SEC. 479. STATE NATURAL RESOURCES ADAPTATION PLANS.

(a) REQUIREMENT.—In order to be eligible for funds under section 480, not later than 1 year after the development of a Natural Resources Climate Change Adapta-

tion Strategy required under section 476 each State shall prepare a State natural resources adaptation plan detailing the State's current and projected efforts to address the potential impacts of climate change and ocean acidification on natural resources and coastal areas within the State's jurisdiction.

(b) REVIEW OR APPROVAL.—

(1) IN GENERAL.—Each State adaptation plan shall be reviewed and approved or disapproved by the Secretary of the Interior and, as applicable, the Secretary of Commerce. Such approval shall be granted if the plan meets the requirements of subsection (c) and is consistent with the Natural Resources Climate Change Adaptation Strategy required under section 476.

(2) APPROVAL OR DISAPPROVAL.—Within 180 days after transmittal of such a plan, or a revision to such a plan, the Secretary of the Interior and, as applicable, the Secretary of Commerce shall approve or disapprove the plan by written notice.

(3) RESUBMITTAL.—Within 90 days after transmittal of a resubmitted adaptation plan as a result of disapproval under paragraph (3), the Secretary of the Interior and, as applicable, the Secretary of Commerce, shall approve or disapprove the plan by written notice.

(c) CONTENTS.—A State natural resources adaptation plan shall—

(1) include a strategy for addressing the impacts of climate change and ocean acidification on terrestrial, marine, estuarine, and freshwater fish, wildlife, plants, habitats, ecosystems, wildlife health, and ecological processes, that—

(A) describes the impacts of climate change and ocean acidification on the diversity and health of the fish, wildlife and plant populations, habitats, ecosystems, and associated ecological processes;

(B) establishes programs for monitoring the impacts of climate change and ocean acidification on fish, wildlife, and plant populations, habitats, ecosystems, and associated ecological processes;

(C) describes and prioritizes proposed conservation actions to assist fish, wildlife, plant populations, habitats, ecosystems, and associated ecological processes in becoming more resilient, adapting to, and better withstanding those impacts;

(D) includes strategies, specific conservation actions, and a time frame for implementing conservation actions for fish, wildlife, and plant populations, habitats, ecosystems, and associated ecological processes;

(E) establishes methods for assessing the effectiveness of strategies and conservation actions taken to assist fish, wildlife, and plant populations, habitats, ecosystems, and associated ecological processes in becoming more resilient, adapt to, and better withstand the impacts of climate changes and ocean acidification and for updating those strategies and actions to respond appropriately to new information or changing conditions;

(F) is incorporated into a revision of the State wildlife action plan (also known as the State comprehensive wildlife strategy)—

(i) that has been submitted to the United States Fish and Wildlife Service; and

(ii) that has been approved by the Service or on which a decision on approval is pending; and

(G) is developed—

(i) with the participation of the State fish and wildlife agency, the State coastal agency, the State agency responsible for administration of Land and Water Conservation Fund grants, the State Forest Legacy program coordinator, and other State agencies considered appropriate by the Governor of such State; and

(ii) in coordination with the Secretary of the Interior, and where applicable, the Secretary of Commerce and other States that share jurisdiction over natural resources with the State; and

(2) include, in the case of a coastal State, a strategy for addressing the impacts of climate change and ocean acidification on the coastal zone that—

(A) identifies natural resources that are likely to be impacted by climate change and ocean acidification and describes those impacts;

(B) identifies and prioritizes continuing research and data collection needed to address those impacts including—

(i) acquisition of high resolution coastal elevation and nearshore bathymetry data;

(ii) historic shoreline position maps, erosion rates, and inventories of shoreline features and structures;

(iii) measures and models of relative rates of sea level rise or lake level changes, including effects on flooding, storm surge, inundation, and coastal geological processes;

(iv) habitat loss, including projected losses of coastal wetlands and potentials for inland migration of natural shoreline habitats;

(v) ocean and coastal species and ecosystem migrations, and changes in species population dynamics;

(vi) changes in storm frequency, intensity, or rainfall patterns;

(vii) saltwater intrusion into coastal rivers and aquifers;

(viii) changes in chemical or physical characteristics of marine and estuarine systems;

(ix) increased harmful algal blooms; and

(x) spread of invasive species;

(C) identifies and prioritizes adaptation strategies to protect, restore, and conserve natural resources to enable them to become more resilient, adapt to, and withstand the impacts of climate change and ocean acidification, including—

(i) protection, maintenance, and restoration of ecologically important coastal lands, coastal and ocean ecosystems, and species biodiversity and the establishment of habitat buffer zones, migration corridors, and climate refugia; and

(ii) improved planning, siting policies, and hazard mitigation strategies;

(D) establishes programs for the long-term monitoring of the impacts of climate change and ocean acidification on the ocean and coastal zone and to assess and adjust, when necessary, such adaptive management strategies;

(E) establishes performance measures for assessing the effectiveness of adaptation strategies intended to improve resilience and the ability of natural resources in the coastal zone to adapt to and withstand the impacts of climate change and ocean acidification and of adaptation strategies intended to minimize those impacts on the coastal zone and to update those strategies to respond to new information or changing conditions; and

(F) is developed with the participation of the State coastal agency and other appropriate State agencies and in coordination with the Secretary of Commerce and other appropriate Federal agencies.

(d) PUBLIC INPUT.—States shall provide for solicitation and consideration of public and independent scientific input in the development of their plans.

(e) COORDINATION WITH OTHER PLANS.—The State plan shall take into consideration research and information contained in, and coordinate with and integrate the goals and measures identified in, as appropriate, other natural resources conservation strategies, including—

(1) the national fish habitat action plan;

(2) plans under the North American Wetlands Conservation Act (16 U.S.C. 4401 et seq.);

(3) the Federal, State, and local partnership known as "Partners in Flight";

(4) federally approved coastal zone management plans under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.);

(5) federally approved regional fishery management plants and habitat conservation activities under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.);

(6) the national coral reef action plan;

(7) recovery plans for threatened species and endangered species under section 4(f) of the Endangered Species Act of 1973 (16 U.S.C. 1533(f));

(8) habitat conservation plans under section 10 of that Act (16 U.S.C. 1539);

(9) other Federal, State, and tribal plans for imperiled species;

(10) State or tribal hazard mitigation plans;

(11) State or tribal water management plans; and

(12) other State-based strategies that comprehensively implement adaptation activities to remediate the effects of climate change and ocean acidification on terrestrial, marine, and freshwater fish, wildlife, plants, and other natural resources.

(f) UPDATING.—Each State plan shall be updated not less than every 5 years.

(g) FUNDING.—

(1) IN GENERAL.—Funds allocated to States under section 480 shall be used only for activities that are consistent with a State natural resources adaptation plan that has been approved by the Secretaries of Interior and Commerce.

(2) FUNDING PRIOR TO THE APPROVAL OF A STATE PLAN.—Until the earlier of the date that is 3 years after the date of the enactment of this subpart or the date on which a State receives approval for the State strategy, a State shall be eligible to receive funding under section 480 for adaptation activities that are—

(A) consistent with the comprehensive wildlife strategy of the State and, where appropriate, other natural resources conservation strategies; and

(B) in accordance with a workplan developed in coordination with—

(i) the Secretary of the Interior; and

(ii) the Secretary of Commerce, for any coastal State subject to the condition that coordination with the Secretary of Commerce shall be required only for those portions of the strategy relating to activities affecting the coastal zone.

(3) PENDING APPROVAL.—During the period for which approval by the applicable Secretary of a State plan is pending, the State may continue receiving funds under section 480 pursuant to the workplan described in paragraph (2)(B).

SEC. 480. NATURAL RESOURCES CLIMATE CHANGE ADAPTATION FUND.

(a) ALLOCATIONS TO STATES.—100 percent of the emission allowances made available for each year to carry out this subpart shall be provided to States to carry out natural resources adaptation activities in accordance with State natural resources adaptation plans approved under section 479. Specifically—

(1) 84.4 percent shall be available to State wildlife agencies in accordance with the apportionment formula established under the second subsection (c) of section 4 of the Pittman-Robertson Wildlife Restoration Act (16 U.S.C. 669c), as added by section 902(e) of H.R. 5548 as introduced in the 106th Congress and enacted into law by section 1(a)(2) of Public Law 106–553 (114 Stat. 2762A–119); and

(2) 15.6 percent shall be available to State coastal agencies pursuant to the formula established by the Secretary of Commerce under section 306(c) of the Coastal Management Act of 1972 (16 U.S.C. 1455(c)).

(b) ESTABLISHMENT OF FUND.—

(1) ESTABLISHMENT.—There is hereby established in the Treasury a separate account that shall be known as the Natural Resources Climate Change Adaptation Fund.

(2) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for section 480(c) such sums as are deposited in the Natural Resources Climate Change Fund, and the amounts appropriated for section 480(c) shall be no less than the total estimated annual deposits in the Natural Resources Climate Change Adaptation Fund. Such appropriations shall be offset by the amounts deposited in such fund pursuant to section 782(m).

(c) ALLOCATIONS TO FEDERAL AGENCIES.—

(1) DEPARTMENT OF THE INTERIOR.—Of the amounts made available for each fiscal year to carry out this subpart—

(A) 27.6 percent shall be allocated to the Secretary of the Interior for use in funding—

(i) natural resources adaptation activities carried out—

(I) under endangered species, migratory species, and other fish and wildlife programs administered by the National Park Service, the United States Fish and Wildlife Service, the Bureau of Indian Affairs, and the Bureau of Land Management;

(II) on wildlife refuges, National Park Service land, and other public land under the jurisdiction of the United States Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Indian Affairs, or the National Park Service; or

(III) within Federal water managed by the Bureau of Reclamation and the National Park Service; and

(ii) for the implementation of the National Fish and Wildlife Habitat and Corridors Identification Program pursuant to section 481;

(B) 8.1 percent shall be allocated to the Secretary of the Interior for natural resources adaptation activities carried out under cooperative grant programs, including—

(i) the cooperative endangered species conservation fund authorized under section 6 of the Endangered Species Act of 1973 (16 U.S.C. 1535);

(ii) programs under the North American Wetlands Conservation Act (16 U.S.C. 4401 et seq.);

(iii) the Neotropical Migratory Bird Conservation Fund established by section 478(a) of the Neotropical Migratory Bird Conservation Act (16 U.S.C. 6108(a));

(iv) the Coastal Program of the United States Fish and Wildlife Service;

(v) the National Fish Habitat Action Plan;

(vi) the Partners for Fish and Wildlife Program;

(vii) the Landowner Incentive Program;

(viii) the Wildlife Without Borders Program of the United States Fish and Wildlife Service; and

(ix) the Migratory Species Program and Park Flight Migratory Bird Program of the National Park Service; and

(C) 4.9 percent shall be allocated to the Secretary of the Interior to provide financial assistance to Indian tribes to carry out natural resources adaptation activities through the Tribal Wildlife Grants Program of the United States Fish and Wildlife Service.

(2) LAND AND WATER CONSERVATION FUND.—

(A) DEPOSITS.—

(i) IN GENERAL.—Of the amounts made available for each fiscal year to carry out this subpart, 19.5 percent shall be deposited into the Land and Water Conservation Fund established under section 2 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–5).

(ii) USE OF DEPOSITS.— (I) Deposits into the Land and Water Conservation Fund under this paragraph shall be supplemental to authorizations provided under section 3 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–6), which shall remain available for nonadaptation needs.

(II) There are authorized to be appropriated for activities in this subpart such sums as are deposited in the Land and Water Conservation Fund pursuant to section 480(c)(3)(A)(ii), and the amounts appropriated for this paragraph shall be no less than the total estimated annual deposits in the Land and Water Conservation Fund. Such appropriations shall be offset by the amounts deposited in such Fund pursuant to section 782(m).

(B) ALLOCATIONS.—Of the amounts deposited under this paragraph into the Land and Water Conservation Fund—

(i) ⅙ shall be allocated to the Secretary of the Interior and made available on a competitive basis to carry out natural resources adaptation activities through the acquisition of land and interests in land under section 6 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–8)—

(I) to States in accordance with their natural resources adaptation plans, and to Indian tribes;

(II) notwithstanding section 5 of that Act (16 U.S.C. 460l–7); and

(III) in addition to any funds provided pursuant to annual appropriations Acts, the Energy Policy Act of 2005 (42 U.S.C. 15801 et seq.), or any other authorization for nonadaptation needs;

(ii) ⅓ shall be allocated to the Secretary of the Interior to carry out natural resources adaptation activities through the acquisition of lands and interests in land under section 7 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–9);

(iii) ⅙ shall be allocated to the Secretary of Agriculture and made available to the States and Indian tribes to carry out natural resources adaptation activities through the acquisition of land and interests in land under section 7 of the Forest Legacy Program under the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2103c); and

(iv) ⅓ shall be allocated to the Secretary of Agriculture to carry out natural resources adaptation activities through the acquisition of land and interests in land under section 7 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–9).

(C) EXPENDITURE OF FUNDS.—In allocating funds under subparagraph (B), the Secretary of the Interior and the Secretary of Agriculture shall take into consideration factors including—

(i) the availability of non-Federal contributions from State, local, or private sources;

(ii) opportunities to protect fish and wildlife corridors or otherwise to link or consolidate fragmented habitats;

(iii) opportunities to reduce the risk of catastrophic wildfires, drought, extreme flooding, or other climate-related events that are harmful to fish and wildlife and people; and

(iv) the potential for conservation of species or habitat types at serious risk due to climate change, ocean acidification, and other stressors.

(3) FOREST SERVICE.—Of the amounts made available for each fiscal year to carry out this subpart, 8.1 percent shall be allocated to the Secretary of Agriculture for use in funding natural resources adaptation activities carried out on national forests and national grasslands under the jurisdiction of the Forest Service.

(4) DEPARTMENT OF COMMERCE.—Of the amounts made available for each fiscal year to carry out this subpart, 11.5 percent shall be allocated to the Secretary of Commerce for use in funding natural resources adaptation activities to protect, maintain, and restore coastal, estuarine, and marine resources, habitats, and ecosystems, including such activities carried out under—

(A) the coastal and estuarine land conservation program;

(B) the community-based restoration program;

(C) the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.), that are specifically designed to strengthen the ability of coastal, estuarine, and marine resources, habitats, and ecosystems to adapt to and withstand the impacts of climate change and ocean acidification;

(D) the Open Rivers Initiative;

(E) the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.);

(F) the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.);

(G) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);

(H) the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.);

(I) the Coral Reef Conservation Act of 2000 (16 U.S.C. 6401 et seq.); and

(J) the Estuary Restoration Act of 2000 (33 U.S.C. 2901 et seq.).

(5) ENVIRONMENTAL PROTECTION AGENCY.—Of the amounts made available each fiscal year to carry out this section, 12.2 percent shall be allocated to the Administrator for use in natural resources adaptation activities restoring and protecting—

(A) large-scale freshwater aquatic ecosystems, such as the Everglades, the Great Lakes, Flathead Lake, the Missouri River, the Mississippi River, the Colorado River, the Sacramento-San Joaquin Rivers, the Ohio River, the Columbia-Snake River System, the Apalachicola, Chattahoochee, and Flint River System, the Connecticut River, and the Yellowstone River;

(B) large-scale estuarine ecosystems, such as Chesapeake Bay, Long Island Sound, Puget Sound, the Mississippi River Delta, the San Francisco Bay Delta, Narragansett Bay, and Albemarle-Pamlico Sound; and

(C) freshwater and estuarine ecosystems, watersheds, and basins identified as priorities by the Administrator, working in cooperation with other Federal agencies, States, Indian tribes, local governments, scientists, and other conservation partners.

(6) CORPS OF ENGINEERS.—Of the amounts made available each fiscal year to carry out this section, 8.1 percent shall be available to the Secretary of the Army for use by the Corps of Engineers to carry out natural resources adaptation activities restoring—

(A) large-scale freshwater aquatic ecosystems, such as the ecosystems described in paragraph (5)(A);

(B) large-scale estuarine ecosystems, such as the ecosystems described in paragraph (5)(B);

(C) freshwater and estuarine ecosystems, watersheds, and basins identified as priorities by the Corps of Engineers, working in cooperation with other Federal agencies, States, Indian tribes, local governments, scientists, and other conservation partners; and

(D) habitats and ecosystems through the implementation of estuary habitat restoration projects authorized by the Estuary Restoration Act of 2000 (33 U.S.C. 2901 et seq.), project modifications for improvement of the environment, aquatic restoration and protection projects authorized by section 206 of the Water Resources Development Act of 1996 (33 U.S.C. 2330), and other appropriate programs and activities.

(d) USE OF FUNDS BY FEDERAL DEPARTMENTS AND AGENCIES.—Funds allocated to Federal departments and agencies under this section shall only be used for natural resources adaptation activities that are consistent with an adaptation plan developed and approved by the President under section 478.

(e) STATE COST SHARING.—Notwithstanding any other provision of law, a State that receives a grant with amounts allocated under this section shall use funds from non-Federal sources to pay 10 percent of the costs of each activity carried out using amounts provided under the grant.

SEC. 481. NATIONAL WILDLIFE HABITAT AND CORRIDORS INFORMATION PROGRAM.

(a) ESTABLISHMENT.—Within 6 months of the date of enactment of this subpart, the Secretary of the Interior, in cooperation with the States and Indian tribes, shall establish a National Fish and Wildlife Habitat and Corridors Information Program in accordance with the requirements of this section.

(b) PURPOSE.—The purpose of this program is to—

(1) support States and Indian tribes in the development of a geographic information system database of fish and wildlife habitat and corridors that would inform planning and development decisions within each State, enable each State to model climate impacts and adaptation, and provide geographically specific enhancements of State wildlife action plans;

(2) ensure the collaborative development, with the States and Indian tribes, of a comprehensive, national geographic information system database of maps, models, data, surveys, informational products, and other geospatial information regarding fish and wildlife habitat and corridors, that—

(A) is based on consistent protocols for sampling and mapping across landscapes that take into account regional differences; and

(B) that utilizes—

(i) existing and planned State- and tribal-based geographic information system databases; and

(ii) existing databases, analytical tools, metadata activities, and other information products available through the National Biological Information Infrastructure maintained by the Secretary and nongovernmental organizations; and

(3) facilitate the use of such databases by Federal, State, local, and tribal decisionmakers to incorporate qualitative information on fish and wildlife habitat and corridors at the earliest possible stage to—

(A) prioritize and target natural resources adaptation strategies and activities;

(B) avoid, minimize, and mitigate the impacts on fish and wildlife habitat and corridors in siting energy development, water, transmission, transportation, and other land use projects;

(C) assess the impacts of existing development on habitats and corridors; and

(D) develop management strategies to enhance the ability of fish, wildlife, and plant species to migrate or respond to shifting habitats within existing habitats and corridors.

(c) HABITAT AND CORRIDORS INFORMATION SYSTEM.—

(1) IN GENERAL.—The Secretary, in cooperation with the States and Indian tribes, shall develop a Habitat and Corridors Information System.

(2) CONTENTS.—The System shall—

(A) include maps, data, and descriptions of fish and wildlife habitat and corridors, that—

(i) have been developed by Federal agencies, State wildlife agencies and natural heritage programs, Indian tribes, local governments, nongovernmental organizations, and industry;

(ii) meet accepted Geospatial Interoperability Framework data and metadata protocols and standards;

(B) include maps and descriptions of projected shifts in habitats and corridors of fish and wildlife species in response to climate change;

(C) assure data quality and make the data, models, and analyses included in the System available at scales useful to decisionmakers—

(i) to prioritize and target natural resources adaptation strategies and activities;

(ii) to assess the impacts of proposed energy development, water, transmission, transportation, and other land use projects and avoid, minimize, and mitigate those impacts on habitats and corridors;

(iii) to assess the impacts of existing development on habitats and corridors; and

(iv) to develop management strategies to enhance the ability of fish, wildlife, and plant species to migrate or respond to shifting habitats within existing habitats and corridors;

(D) establish a process for updating maps and other information as landscapes, habitats, corridors, and wildlife populations change or as other information becomes available;

(E) encourage the development of collaborative plans by Federal and State agencies and Indian tribes to monitor and evaluate the efficacy of the System to meet the needs of decisionmakers;

(F) identify gaps in habitat and corridor information, mapping, and research that should be addressed to fully understand and assess current data and metadata, and to prioritize research and future data collection activities for use in updating the System and provide support for those activities;

(G) include mechanisms to support collaborative research, mapping, and planning of habitats and corridors by Federal and State agencies, Indian tribes, and other interested stakeholders;

(H) incorporate biological and geospatial data on species and corridors found in energy development and transmission plans, including renewable energy initiatives, transportation, and other land use plans;

(I) be based on the best scientific information available; and

(J) identify, prioritize, and describe key parcels of non-Federal land located within the boundaries of units of the National Park System, National Wildlife Refuge System, National Forest System, or National Grassland System that are critical to maintenance of wildlife habitat and migration corridors.

(d) FINANCIAL AND OTHER SUPPORT.—The Secretary may provide support to the States and Indian tribes, including financial and technical assistance, for activities that support the development and implementation of the System.

(e) COORDINATION.—The Secretary, in cooperation with the States and Indian tribes, shall make recommendations on how the information developed in the System may be incorporated into existing relevant State and Federal plans affecting fish and wildlife, including land management plans, the State Comprehensive Wildlife Conservation Strategies, and appropriate tribal conservation plans, to ensure that they—

(1) prevent unnecessary habitat fragmentation and disruption of corridors;

(2) promote the landscape connectivity necessary to allow wildlife to move as necessary to meet biological needs, adjust to shifts in habitat, and adapt to climate change; and

(3) minimize the impacts of energy, development, water, transportation, and transmission projects and other activities expected to impact habitat and corridors.

(f) DEFINITIONS.—In this section:

(1) GEOSPATIAL INTEROPERABILITY FRAMEWORK.—The term "Geospatial Interoperability Framework" means the strategy utilized by the National Biological Information Infrastructure that is based upon accepted standards, specifications, and protocols adopted through the International Standards Organization, the Open Geospatial Consortium, and the Federal Geographic Data Committee, to manage, archive, integrate, analyze, and make accessible geospatial and biological data and metadata.

(2) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

SEC. 482. ADDITIONAL PROVISIONS REGARDING INDIAN TRIBES.

(a) FEDERAL TRUST RESPONSIBILITY.—Nothing in this subpart is intended to amend, alter, or give priority over the Federal trust responsibility to Indian tribes.

(b) EXEMPTION FROM FOIA.—If a Federal department or agency receives any information related to sacred sites or cultural activities identified by an Indian tribe as confidential, such information shall be exempt from disclosure under section 552 of title 5, United States Code, popularly known as the Freedom of Information Act (5 U.S.C. 552).

(c) APPLICATION OF OTHER LAW.—The Secretary of the Interior may apply the provisions of Public Law 93–638 where appropriate in the implementation of this subpart.

PART 2—INTERNATIONAL CLIMATE CHANGE ADAPTATION PROGRAM

SEC. 491. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress finds the following:

(1) Global climate change is a potentially significant national and global security threat multiplier and is likely to exacerbate competition and conflict over agricultural, vegetative, marine, and water resources and to result in increased displacement of people, poverty, and hunger within developing countries.

(2) The strategic, social, political, economic, cultural, and environmental consequences of global climate change are likely to have disproportionate adverse impacts on developing countries, which have less economic capacity to respond to such impacts.

(3) The countries most vulnerable to climate change, due both to greater exposure to harmful impacts and to lower capacity to adapt, are developing countries with very low industrial greenhouse gas emissions that have contributed less to climate change than more affluent countries.

(4) To a much greater degree than developed countries, developing countries rely on the natural and environmental systems likely to be affected by climate change for sustenance, livelihoods, and economic growth and stability.

(5) Within developing countries there may be varying climate change adaptation and resilience needs among different communities and populations, including impoverished communities, children, women, and indigenous peoples.

(6) The consequences of global climate change, including increases in poverty and destabilization of economies and societies, are likely to pose long-term challenges to the national security, foreign policy, and economic interests of the United States.

(7) It is in the national security, foreign policy, and economic interests of the United States to recognize, plan for, and mitigate the international strategic, social, political, cultural, environmental, health, and economic effects of climate change and to assist developing countries to increase their resilience to those effects.

(8) Under Article 4 of the United Nations Framework Convention on Climate Change, developed country parties, including the United States, committed to "assist the developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects".

(9) Under the Bali Action Plan, developed country parties to the United Nations Framework Convention on Climate Change, including the United States, committed to "enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation," including, inter alia, consideration of "improved access to adequate, predictable, and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country parties".

(b) PURPOSES.—The purposes of this part are—

(1) to provide new and additional assistance from the United States to the most vulnerable developing countries, including the most vulnerable communities and populations therein, in order to support the development and implementation of climate change adaptation programs and activities that reduce the vulnerability and increase the resilience of communities to climate change impacts, including impacts on water availability, agricultural productivity, flood risk, coastal resources, timing of seasons, biodiversity, economic livelihoods, health and diseases, and human migration; and

(2) to provide such assistance in a manner that protects and promotes the national security, foreign policy, environmental, and economic interests of the United States to the extent such interests may be advanced by minimizing, averting, or increasing resilience to climate change impacts.

SEC. 492. DEFINITIONS.

In this part:

(1) ALLOWANCE.—The term "allowance" means an emission allowance established under section 721 of the Clean Air Act.

(2) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional committees" means—

(A) the Committees on Energy and Commerce, Financial Services, and Foreign Affairs of the House of Representatives; and

(B) the Committees on Environment and Public Works and Foreign Relations of the Senate.

(3) DEVELOPING COUNTRY.—The term "developing country" means a country eligible to receive official development assistance according to the income guidelines of the Development Assistance Committee of the Organization for Economic Cooperation and Development.

(4) MOST VULNERABLE DEVELOPING COUNTRIES.—The term "most vulnerable developing countries" means, as determined by the Administrator of USAID, developing countries that are at risk of substantial adverse impacts of climate change and have limited capacity to respond to such impacts, considering the approaches included in any international treaties and agreements.

(5) MOST VULNERABLE COMMUNITIES AND POPULATIONS.—The term "most vulnerable communities and populations" means communities and populations that are at risk of substantial adverse impacts of climate change and have limited capacity to respond to such impacts, including impoverished communities, children, women, and indigenous peoples.

(6) PROGRAM.—The term "Program" means the International Climate Change Adaptation Program established under section 493.

(7) USAID.—The term "USAID" means the United States Agency for International Development.

(8) UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE.—The term "United Nations Framework Convention on Climate Change" or "Convention" means the United Nations Framework Convention on Climate Change done at New York on May 9, 1992, and entered into force on March 21, 1994.

SEC. 493. INTERNATIONAL CLIMATE CHANGE ADAPTATION PROGRAM.

(a) ESTABLISHMENT.—The Secretary of State, in consultation with the Administrator of USAID, the Secretary of the Treasury, and the Administrator of the Environmental Protection Agency, shall establish an International Climate Change Adaptation Program in accordance with the requirements of this part.

(b) ALLOWANCE ACCOUNT.—Allowances allocated pursuant to section 782(n) of the Clean Air Act shall be available for distribution to carry out the Program established under subsection (a).

(c) SUPPLEMENT NOT SUPPLANT.—Assistance provided under this part shall be used to supplement, and not to supplant, any other Federal, State, or local resources available to carry out activities of the type carried out under the Program.

SEC. 494. DISTRIBUTION OF ALLOWANCES.

(a) IN GENERAL.—The Secretary of State, or such other Federal agency head as the President may designate, after consultation with the Secretary of the Treasury, the Administrator of USAID, and the Administrator of the Environmental Protection Agency, shall direct the distribution of allowances to carry out the Program—

(1) in the form of bilateral assistance pursuant to the requirements under section 495;

(2) to multilateral funds or international institutions pursuant to the Convention or an agreement negotiated under the Convention; or

(3) through a combination of the mechanisms identified under paragraphs (1) and (2).

(b) LIMITATION.—

(1) CONDITIONAL DISTRIBUTION TO MULTILATERAL FUNDS OR INTERNATIONAL INSTITUTIONS.—In any fiscal year, the Secretary of State, or such other Federal agency head as the President may designate, in consultation with the Administrator of USAID, the Secretary of the Treasury, and the Administrator of the Environmental Protection Agency, shall distribute at least 40 percent and up to 60 percent of the allowances available to carry out the Program to one or more multilateral funds or international institutions that meet the requirements of paragraph (2), if any such fund or institution exists, and shall annually certify in a report to the appropriate congressional committees that any multilateral fund or international institution receiving allowances under this section meets the requirements of paragraph (2) or that no multilateral fund or international institution that meets the requirements of paragraph (2) exists, as the case may be. The Secretary of State shall notify the appropriate congressional committees not less than 15 days prior to any transfer of allowances to a multilateral fund or international institution pursuant to this section.

(2) MULTILATERAL FUND OR INTERNATIONAL INSTITUTION ELIGIBILITY.—A multilateral fund or international institution is eligible to receive allowances available to carry out the Program—

(A) if—

(i) such fund or institution is established pursuant to—

(I) the Convention; or

(II) an agreement negotiated under the Convention; or

(ii) the allowances are directed to one or more multilateral development banks or international development institutions, pursuant to an agreement negotiated under such Convention; and

(B) if such fund or institution—

(i) specifies the terms and conditions under which the United States is to provide allowances to the fund or institution, and under which the fund or institution is to provide assistance to recipient countries;

(ii) ensures that assistance from the United States to the fund or institution and the principal and income of the fund or institution are disbursed only for purposes that are consistent with those described in section 491(b)(1);

(iii) requires a regular meeting of a governing body of the fund or institution that includes representation from countries among the most vulnerable developing countries and provides public access;

(iv) requires that local communities and indigenous peoples in areas where any activities or programs are planned are engaged through ade-

quate disclosure of information, public participation, and consultation; and

(v) prepares and makes public an annual report that—

(I) describes the process and methodology for selecting the recipients of assistance from the fund or institution, including assessments of vulnerability;

(II) describes specific programs and activities supported by the fund or institution and the extent to which the assistance is addressing the adaptation needs of the most vulnerable developing countries, and the most vulnerable communities and populations therein;

(III) describes the performance goals for assistance authorized under the fund or institution and expresses such goals in an objective and quantifiable form, to the extent practicable;

(IV) describes the performance indicators to be used in measuring or assessing the achievement of the performance goals described in subclause (III);

(V) provides a basis for recommendations for adjustments to assistance authorized under this part to enhance the impact of such assistance; and

(VI) describes the participation of other nations and international organizations in supporting and governing the fund or institution.

(c) OVERSIGHT.—

(1) DISTRIBUTION TO MULTILATERAL FUNDS OR INTERNATIONAL INSTITUTIONS.—The Secretary of State, or such other Federal agency head as the President may designate, in consultation with the Administrator of USAID, shall oversee the distribution of allowances available to carry out the Program to a multilateral fund or international institution under subsection (b).

(2) BILATERAL ASSISTANCE.—The Administrator of USAID, in consultation with the Secretary of State, shall oversee the distribution of allowances available to carry out the Program for bilateral assistance under section 495.

SEC. 495. BILATERAL ASSISTANCE.

(a) ACTIVITIES AND FOREIGN AID.—

(1) IN GENERAL.—In order to achieve the purposes of this part, the Administrator of USAID may carry out programs and activities and distribute allowances to any private or public group (including international organizations and faith-based organizations), association, or other entity engaged in peaceful activities to—

(A) provide assistance to the most vulnerable developing countries for—

(i) the development of national or regional climate change adaptation plans, including a systematic assessment of socioeconomic vulnerabilities in order to identify the most vulnerable communities and populations;

(ii) associated national policies; and

(iii) planning, financing, and execution of adaptation programs and activities;

(B) support investments, capacity-building activities, and other assistance, to reduce vulnerability and promote community-level resilience related to climate change and its impacts in the most vulnerable developing countries, including impacts on water availability, agricultural productivity, flood risk, coastal resources, timing of seasons, biodiversity, economic livelihoods, health, human migration, or other social, economic, political, cultural, or environmental matters;

(C) support climate change adaptation research in or for the most vulnerable developing countries;

(D) reduce vulnerability and provide increased resilience to climate change for local communities and livelihoods in the most vulnerable developing countries by encouraging—

(i) the protection and rehabilitation of natural systems;

(ii) the enhancement and diversification of agricultural, fishery, and other livelihoods; and

(iii) the reduction of disaster risks;

(E) support the deployment of technologies to help the most vulnerable developing countries respond to the destabilizing impacts of climate change and encourage the identification and adoption of appropriate renewable and efficient energy technologies that are beneficial in increasing community-level resilience to the impacts of global climate change in those countries; and

(F) encourage the engagement of local communities through disclosure of information, consultation, and the communities' informed participation relating to the development of plans, programs, and activities to increase community-level resilience to climate change impacts.

(2) LIMITATIONS.—Not more than 10 percent of the allowances made available to carry out bilateral assistance under this part in any year shall be distributed to support activities in any single country.

(3) PRIORITIZING ASSISTANCE.—In providing assistance under this section, the Administrator of USAID shall give priority to countries, including the most vulnerable communities and populations therein, that are most vulnerable to the adverse impacts of climate change, determined by the likelihood and severity of such impacts and the country's capacity to adapt to such impacts.

(b) COMMUNITY ENGAGEMENT.—

(1) IN GENERAL.—The Administrator of USAID shall ensure that local communities, including the most vulnerable communities and populations therein, in areas where any programs or activities are carried out pursuant to this section are engaged in, through disclosure of information, public participation, and consultation, the design, implementation, monitoring, and evaluation of such programs and activities.

(2) CONSULTATION AND DISCLOSURE.—For each country receiving assistance under this section, the Administrator of USAID shall establish a process for consultation with, and disclosure of information to, local, national, and international stakeholders regarding any programs and activities carried out pursuant to this section.

(c) COORDINATION.—

(1) ALIGNMENT OF ACTIVITIES.—Subject to the direction of the President and the Secretary of State, the Administrator of USAID shall, to the extent practicable, seek to align activities under this section with broader development, poverty alleviation, or natural resource management objectives and initiatives in the recipient country.

(2) COORDINATION OF ACTIVITIES.—The Administrator of USAID shall ensure that there is coordination among the activities under this section, subtitle D of this title, and part E of title VII of the Clean Air Act, in order to maximize the effectiveness of United States assistance to developing countries.

(d) REPORTING.—

(1) INITIAL REPORT.—Not later than 180 days after the date of enactment of this part, the Administrator of USAID, in consultation with the Secretary of State, shall submit to the President and the appropriate congressional committees an initial report that—

(A) based on the most recent information available from reliable public sources or knowledge obtained by USAID on a reliable basis, as determined by the Administrator of USAID, identifies the developing countries, including the most vulnerable communities and populations therein, that are most vulnerable to climate change impacts and in which assistance may have the greatest and most sustainable benefit in reducing vulnerability to climate change; and

(B) describes the process and methodology for selecting the recipients of assistance under subsection (a)(1).

(2) ANNUAL REPORTS.—Not later than 18 months after the date on which the initial report is submitted pursuant to paragraph (1), and annually thereafter, the Administrator of USAID, in consultation with the Secretary of State, shall submit to the President and the appropriate congressional committees a report that—

(A) describes the extent to which global climate change, through its potential negative impacts on sensitive populations and natural resources in the most vulnerable developing countries, may threaten, cause, or exacerbate political, economic, environmental, cultural, or social instability or international conflict in those regions;

(B) describes the ramifications of any potentially destabilizing impacts climate change may have on the national security, foreign policy, and economic interests of the United States, including—

(i) the creation of environmental migrants and internally displaced peoples;

(ii) international or internal armed conflicts over water, food, land, or other resources;

(iii) loss of agricultural and other livelihoods, cultural stability, and other causes of increased poverty and economic destabilization;

(iv) decline in availability of resources needed for survival, including water;

(v) increased impact of natural disasters (including droughts, flooding, and other severe weather events);

(vi) increased prevalence or virulence of climate-related diseases; and

(vii) intensified urban migration;

(C) describes how allowances available under this section were distributed during the previous fiscal year to enhance the national security, foreign policy, and economic interests of the United States and assist in avoiding the economically, politically, environmentally, culturally, and socially destabilizing impacts of climate change in most vulnerable developing countries;

(D) identifies and recommends the developing countries, including the most vulnerable communities and populations therein, that are most vulnerable to climate change impacts and in which assistance may have the greatest and most sustainable benefit in reducing vulnerability to climate change, including in the form of deploying technologies, investments, capacity-building activities, and other types of assistance for adaptation to climate change impacts and approaches to reduce greenhouse gases in ways that may also provide community-level resilience to climate change impacts; and

(E) describes cooperation undertaken with other nations and international organizations to carry out this part.

(e) MONITORING AND EVALUATION.—

(1) IN GENERAL.—The Administrator of USAID shall establish and implement a system to monitor and evaluate the effectiveness and efficiency of assistance provided under this section in order to maximize the long-term sustainable development impact of such assistance, including the extent to which such assistance is meeting the purposes of this part and addressing the adaptation needs of developing countries.

(2) REQUIREMENTS.—In carrying out paragraph (1), the Administrator of USAID shall—

(A) in consultation with national governments in recipient countries, establish performance goals for assistance authorized under this section and express such goals in an objective and quantifiable form, to the extent practicable;

(B) establish performance indicators to be used in measuring or assessing the achievement of the performance goals described in subparagraph (A), including an evaluation of—

(i) the extent to which assistance under this section provided for disclosure of information to, consultation with, and informed participation by local communities;

(ii) the extent to which local communities participated in the design, implementation, and evaluation of programs and activities implemented pursuant to this section; and

(iii) the impacts of such participation on the goals and objectives of the programs and activities implemented under this section;

(C) provide a basis for recommendations for adjustments to assistance authorized under this section to enhance the impact of such assistance; and

(D) include, in the annual report to the appropriate congressional committees and other relevant agencies required under subsection (d)(2), findings resulting from the monitoring and evaluation of programs and activities under this section.

PURPOSE AND SUMMARY

H.R. 2454, the "American Clean Energy and Security Act of 2009" (ACES) was introduced by Rep. Henry A. Waxman and Rep. Edward J. Markey on May 15, 2009. The purpose of the legislation is to create clean energy jobs, achieve energy independence, reduce global warming pollution and transition to a clean energy economy.

Key provisions in the bill:

• Require electric utilities to meet 20 percent of their electricity demand through renewable energy sources and energy efficiency by 2020.

• Invest in new clean energy technologies and energy efficiency, including energy efficiency and renewable energy, carbon capture

and sequestration, electric and other advanced technology vehicles, and basic scientific research and development.

• Mandate new energy-saving standards for buildings and appliances, as well as promote efficiency in the industrial sectors.

• Reduce carbon emissions from major U.S. sources by 17 percent by 2020 and over 80 percent by 2050 compared to 2005 levels. Complementary measures in the legislation, such as investments in preventing tropical deforestation, will achieve significant additional reductions in carbon emissions.

• Protect consumers from energy price increases.

BACKGROUND AND NEED FOR LEGISLATION

This may prove to be a watershed moment in the history of energy production and consumption. Between now and 2030, an estimated $1.5 trillion will be invested in energy infrastructure in the United States and more than $26 trillion will be invested worldwide.[1] How these investments are made will have dramatic and consequential effects on the national security and economic future of the United States. How these investments are made may also determine the fate of our planet's climate.

ECONOMY

The U.S. economy is not doing well. In April 2009, the national unemployment rate rose to 8.9 percent, with a loss of 5.7 million jobs since the recession began.[2] Foreclosure filings in 2008 rose 81 percent to 2.3 million.[3] Congress has taken steps to help the economy recover, but more aid is needed.

Investments in clean energy offer an important opportunity to spur economic growth. However, uncertainty about federal policies regarding energy and global warming pollution is impeding investors and CEOs in making investments in the energy sector. The Committee received testimony from numerous CEOs on this topic. Jim Rogers, Chairman, President and Chief Executive Officer of Duke Energy testified

> And let me quickly say, for our company, we plan to invest $25 billion in infrastructure over the next 5 years. It is critical we know the rules of the road of climate change as soon as possible to make sure that we are making the right investments. Regulatory uncertainty is postponing investments and renewables in other green technologies. It's postponing the creation of jobs from apprentices to engineers to Ph.Ds. Our one fear—and I will leave this with you—is that many in Congress will look for reasons to postpone action on climate legislation this year.[4]

Jeffrey Immelt, Chairman and Chief Executive Officer of General Electric, similarly testified that

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[1] International Energy Agency, *World Energy Outlook 2008: Executive Summary,* at 5 (2008).

[2] Bureau of Labor Statistics, *Employment Situation Summary* (May 8, 2009) (online at http://www.bls.gov/news.release/empsit.nr0.htm).

[3] *Foreclosures in U.S. Rose 81 percent, Topping 2.3 Million Last Year,* Bloomberg News (Jan. 15, 2009) (online at http://www.bloomberg.com/apps/news?pid=20601110&sid=asgBXeQ.u5Lg).

[4] House Committee on Energy and Commerce, *Hearing on the U.S. Climate Action Partnership* (Jan. 15, 2009).

> Certainty in the investment world is critical to success. And what we lack today is certainty in terms of what is going to happen and when it is going to happen . . . [T]oday, we have almost the worst of all worlds. We have 17 States that are developing their own programs. We have RPS in some areas, not in others. The fact is that the last 40-plus coal plants haven't been permitted. You know, so we have an energy policy, it is just that nobody knows what it is. And it shows up in terms of those consequences. So, look, I am not—I say this with great respect to my colleagues—I didn't come to this as an environmentalist. I come to it as an industrialist. I am a capitalist, pure, plain and simple. And I just think the system we have today is untenable over the long term, insofar as, you know, the science is so compelling on global warming.[5]

David Crane, President and Chief Executive Officer of NRG Energy, informed the Committee that

> If climate change legislation is passed . . . the first thing it will do is it will unleash additional investment by us in various technologies designed to prepare for the cap-and-trade system that is coming. So, you know, this may be counterintuitive, but I think quite the contrary, in the near term it will actually unleash investment and create jobs. And we and many of the companies that sit here, we have very substantial capital. I think my company and Jeff's are the two smallest at this panel. We sit with $1.5 billion in investment capital ready to invest, but we need to know in what direction.[6]

Steve Kline, vice president of corporate environmental and federal affairs for PG&E Corporation stated

> We also see an incredible lost opportunity if we don't act now . . . there are these amazing, developing new technology centers across the United States, and we see those jobs going overseas and that technology superiority going overseas. And so, in terms of our service territory, where Silicon Valley is putting a lot of time and energy into these technologies, we are going to lose that if we don't act now.[7]

By establishing an energy policy that provides certainty with respect to both support for clean energy and regulatory obligations for global warming pollution, we can free up investments that have been on hold. By unleashing billions of dollars of private and public investment in new power generation, retrofits of existing capacity, energy efficiency, and offsets for global warming pollution, clean energy legislation can be an engine for both economic growth and job creation.

Recent experience and economic analyses indicate the scope of the economic opportunities that these investments could create. Over the last few years, renewable electricity projects and compa-

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[5] House Committee on Energy and Commerce, *Hearing on the U.S. Climate Action Partnership,* 111th Cong. (Jan. 15, 2009).

[6] House Committee on Energy and Commerce, *Hearing on the U.S. Climate Action Partnership,* 111th Cong. (Jan. 15, 2009).

[7] House Committee on Energy and Commerce, *Hearing on the U.S. Climate Action Partnership,* 111th Cong. (Jan. 15, 2009).

nies have created tens of thousands of high-paying jobs. The wind industry in particular has been an engine of job growth. Last year, there were about 35,000 new wind jobs.[8] Many of these jobs involve the construction of wind turbines and turbine components, and these new manufacturing jobs are located here in the United States.[9]

The solar industry is also producing clean energy jobs. More than 3,000 companies employ between 25,000 and 35,000 workers.[10] As demand for solar power increases, there are more jobs for solar panel installers, manufacturers, distributors, and material suppliers. The Solar Energy Industries Association predicts that the United States solar sector will be employing more than 110,000 American workers by 2016.[11]

Applying new technologies to traditional fuels can also drive job creation. It has been estimated that construction of the first 20 gigawatts of coal plants with carbon capture and storage will generate 1.4 million job-years of construction work and 47,500 jobs for operations and maintenance. Construction of 65 gigawatts of plants using CCS could create 4.5 million job-years of construction work and 152,500 jobs running those plants.[12] Promotion of clean power construction and deployment of energy efficiency measures also does not risk making investments in jobs that will later be shifted to other countries, as these activities must be done domestically.

Clean energy solutions, developed by American workers, present an unprecedented opportunity for innovation-driven economic revival. The clean technology sector is booming despite the economic downturn. Venture capital investments in the clean energy sector rose to more than $4 billion in 2008, a 54 percent increase from 2007 levels.[13] Globally, about 56% of investment dollars in new power capacity went to renewable sources, about $140 billion in 2008. Again, investment grew even as the global economic crisis drove markets down; investments in clean energy rose 5% in 2008 from 2007 levels.[14]

The renewable energy and energy efficiency technology sectors have already become a major engine of job creation, and numerous studies confirm that adoption of public policies to support these sectors will yield substantial job growth. Research commissioned by the American Solar Energy Society found that in 2007 the energy efficiency and renewable energy industries had revenues of $1 trillion and created more than 9 million jobs. Aggressive investment in energy efficiency would result in the creation of 37 million new

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[8] American Wind Energy Association, *Wind Energy Grows by Record 8,300 MW in 2008* (Jan. 27, 2009) (online at http://www.awea.org/newsroom/releases/wind_energy_growth2008_27Jan09.html).

[9] American Wind Energy Association, *U.S. Wind Energy Industry Praises Congress and President for Adopting Stimulus Bill* (Feb. 17, 2009) (online at http://www.awea.org/newsroom/releases/awea_statement_on_stimulus_bill_17Feb09.html).

[10] *Up on the Roof, New Jobs in Solar,* New York Times (Dec. 13, 2008) (online at http://www.nytimes.com/2008/12/14/jobs/14starts.html?_r=3&8dpc).

[11] Solar Energy Industries Association, *Solar Industry Recommends Steps to Implement Economic Stimulus, Continue to Grow Solar Industry* (May 6, 2009) (online at http://www.seia.org/cs/news_detail?pressrelease.id=407).

[12] BBC Research and Consulting, *Employment and Other Economic Benefits from AdvancedCoal Electric Generation with Carbon Capture and Storage,* (Feb. 2009).

[13] National Venture Capital Association, *Venture Capital Industry Joins President Obama in Support of Investing In Clean Energy Economy* (Mar. 24, 2009) (online at http://www.nvca.org/index.php?option=com_docman&task=doc_download&gid=414&Itemid=93_).

[14] *Clean Energy Funding Trumps Fossil Fuels,* New York Times (June 3, 2009) (online at http://greeninc.blogs.nytimes.com/2009/06/03/clean-energy-funding-trumps-fossil-fuels/?ref=global).

jobs and nearly $4.3 trillion in revenues by 2030.[15] Investments in renewable energy create, on average, three to five times as many jobs as similar investments in fossil-fuel energy systems. A Union of Concerned Scientists analysis found that if utilities generated an average of 20 percent of their electricity from renewable sources, 185,000 new jobs would be created by 2020.[16] The Center for American Progress and the University of Massachusetts—Amherst's Political Economy Research Institute have found that $100 billion targeted investment in five energy efficiency and renewable energy production strategies could generate 2 million new jobs, roughly 800,000 of which would be in the construction sector.[17] Such an approach would outperform an economic stimulus approach focused on increasing household spending, such as through rebate checks, which would create only 300,000 more jobs.

The long-term health of the economy also depends upon the leadership of the United States in the technology sector. The United States risks losing its leadership in clean energy technology. Federal funding for energy research and development has fallen to $3–4 billion a year, which is one-third of the funding levels in the late 1970s, in constant dollars. In the 1990s, the United States was the world leader in solar energy technology, but the leading manufacturers are now China, Japan and Europe.[18] Similarly, China is expected to take the lead in the production of wind turbines in 2009.[19]

Other nations are taking aggressive steps to lead on clean energy technology. China's proposed stimulus plan will invest $221 billion over two years in clean energy and other environmentally friendly technologies. As a percentage of GDP, this is six times the level of investments made in the American Recovery and Reinvestment Act.[20] The United States must take aggressive steps if we want to maintain leadership on the development and production of clean energy technologies and seize the economic opportunities presented by the global shift to cleaner forms of energy.

ENERGY

The United States is facing a deepening energy crisis. The most critical aspect of that crisis is our growing dependence on foreign oil, coupled with the volatility of oil and gasoline prices. But in a range of other key areas, including natural gas and electricity generation and transmission, the United States is facing challenges arising from growing demand, limits on supply, and rising global prices. At the same time, we find ourselves on the cusp of an unprecedented wave of investment in infrastructure and technology, which will benefit those workers and companies positioned to an-

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[15] American Solar Energy Society, *Green Collar Jobs in the U.S. and Colorado: Economic Drivers for the 21st Century* (Jan. 2009) (online at http://www.ases.org/images/stories/ASES/pdfs/CO_Jobs_Rpt_Jan2009_summary.pdf).

[16] Union of Concerned Scientists, *Cashing in on Clean Energy* (July 2007) (online at http://ucsusa.org/assets/documents/clean_energy/cashing-in-national.pdf).

[17] Center for American Progress and Political Economy Research Institute, *Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy* (Sept. 2008) (online at http://www.americanprogress.org/issues/2008/09/pdf/green_recovery.pdf).

[18] World Watch Institute, *Another Sunny Year for Solar Power,* (May 8, 2008) (online at http://www.worldwatch.org/node/5449).

[19] *China Seen Surging to Top Wind Turbine Maker in 09,* Reuters (Jan. 8 2009).

[20] Center for American Progress, *We Must Seize the Energy Opportunity or Slip Further Behind* (Apr. 2009) (online at http://www.americanprogress.org/issues/2009/04/pdf/china_energy.pdf).

swer the challenge. Between now and 2030, more than $26 trillion will be invested in energy infrastructure worldwide, and an estimated $1.5 trillion will be invested in the United States power sector alone. This places us at a critical decision point in the development of the United States and global energy economies.

DEPENDENCE ON OIL

The single greatest energy security challenge facing the United States in the 21st century is our growing dependence on foreign oil. The United States imported more than 4 billion barrels of oil in 2008, or 57 percent of its total oil consumption. This represents an increase in imports compared to 2000, when the U.S. imported 53 percent of the oil it consumed and 1990, when imports stood at 42 percent.[21] Our dependence on oil makes us vulnerable to price spikes and market manipulation. Because oil accounts for nearly a third of domestic global warming pollution, oil dependence is also a cause of significant environmental harm.

Oil and gasoline prices have been extremely volatile over the past several years. The price of oil rose from $18 per barrel in January 2002 to $147 per barrel in July 2008, an increase of more than 700 percent.[22] Prices doubled in just 12 months between July 2007 and July 2008 before declining in the face of an expanding global financial crisis.[23] Similarly, gasoline prices soared from under $1.50 per gallon in January 2001 to more than $4.11 in July 2008.[24] By June 2009, oil prices had more than doubled from their December lows and were back around $70 per barrel, while average gasoline prices had climbed back to more than $2.50 per gallon. The EIA projects oil prices will climb from $61 per barrel in 2009 to $110 per barrel in 2015.[25]

By 2030, global demand for oil is expected to grow to 107 million barrels per day (mbd) compared to current levels of 84 mbd,[26] largely due to demand increases in the developing world. And, despite significant petroleum savings that will result from the fuel economy standard increases and biofuel mandates included in the Energy Independence and Security Act of 2007 (EISA), demand for oil in the United States is expected to continue to grow, from 20.8 mbd today to 21.6 mbd in 2030.[27]

Oil dependence imposes a significant cost on the United States economy. Oil imports cost the United States a staggering $342 billion in 2008.[28] Dr. David L. Greene of the Oak Ridge National Lab-

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[21] Energy Information Administration, *Table 3.3a, Petroleum Trade: Overview* (May 2009) (online at http://www.eia.doe.gov/emeu/mer/pdf/pages/sec3__7.pdf).

[22] Energy Information Administration, *Daily Cushing, OK WTI Spot Price FOB* (online at http://tonto.eia.doe.gov/dnav/pet/hist/rwtcd.htm).

[23] Energy Information Administration, *Daily Cushing, OK WTI Spot Price FOB* (online at http://tonto.eia.doe.gov/dnav/pet/hist/rwtcd.htm).

[24] Energy Information Administration, *Weekly U.S. Regular All Formulations Retail Gasoline Prices* (online at http://tonto.eia.doe.gov/dnav/pet/hist/mg__rt__usw.htm).

[25] Energy Information Administration, *International Energy Outlook: Highlights* (May 27, 2009) (online at *http://www.eia.doe.gov/oiaf/ieo/pdf/highlights.pdf*).

[26] Energy Information Administration, *International Energy Outlook: Highlights* (May 27, 2009) (online at *http://www.eia.doe.gov/oiaf/ieo/pdf/highlights.pdf*).

[27] Energy Information Administration, *Annual Energy Outlook 2009*, at 139 (Mar. 2009) online at *http://www.eia.doe.gov/oiaf/aeo/pdf/0383(2009).pdf*).

[28] U.S. Census Bureau, FT 900: *U.S. International Trade in Goods and Services, Exhibit 17 (Imports of Energy-Related Petroleum Products, Including Crude Oil)* (July 2008) (online at *http://www.census.gov/foreign-trade/Press-Release/current*__press__release/exh17.pdf); U.S. Census Bureau, *FT 900: U.S. International Trade in Goods and Services, Exhibit 17 (Imports of Energy-Related Petroleum Products, Including Crude Oil)* (July 2003) (online at *http://www.census.gov/foreign-trade/Press-Release/2003pr/07/exh17.pdf*).

oratory estimates that the full cost of dependence on foreign oil to the United States economy is much higher—$750 billion in 2008, including a loss of potential GDP of $352 billion (about 2 percent of total GDP).[29]

This growing dependence on foreign oil has dire implications for United States national security and economic stability. Dependence on imported oil makes the United States increasingly vulnerable to foreign governments' manipulation of supply and prices. Although Canada and Mexico supply a substantial proportion of United States imports, OPEC countries control virtually all of the world's marginal production capacity and therefore have the ability to set the global price for this commodity.

While many are calling for increased domestic production as the solution, the facts make clear that we cannot drill our way out of this problem. More drilling will have minimal impact on prices consumers pay for oil or gasoline and will not substantially reduce U.S. dependence on foreign oil. While nearly 83 percent of technically recoverable offshore oil reserves in the United States are located in areas *already* available for leasing and drilling prior to the October 1, 2008 expiration of the Congressional moratoria,[30] the Department of Energy's Energy Information Administration (EIA) estimates that, even if drilling were permitted in the OCS of the entire continental United States, this would increase cumulative U.S. oil production by only 1.6 percent by 2030 and would have an "insignificant" impact on prices.[31] EIA estimates that if the Arctic National Wildlife Refuge were opened for drilling, production would likely peak in 2027 at just 0.78 million barrels per day—reducing world oil prices by 75 cents per barrel in EIA's average price and resource case.[32] In addition, EIA notes that "the Organization of Petroleum Exporting Countries (OPEC) could neutralize any potential price impact of ANWR oil production by reducing its oil exports by an equal amount."[33]

Finally, regardless of U.S. oil production trends there are serious questions about whether increasing global demand can be met. Estimates of the total petroleum resource currently in the ground—both conventional and unconventional[34]—vary from 14 to 24 trillion barrels.[35] However, "proven reserves," those that have already been discovered and are expected to be economically producible are only estimated to produce between 1.1 trillion and 1.4 trillion bar-

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[29] Oak Ridge National Laboratory, *Costs of Oil Dependence Update 2008: Summary* (Aug. 8, 2008).

[30] U.S. Mineral Management Service, *Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources* (Feb. 2006) (online at *http://www.mms.gov/revaldiv/PDFs/FinalInvRptToCongress050106.pdf*). Figures are adjusted to account for the estimated 1.26 billion barrels of oil and 79.96 trillion cubic feet of gas in the Gulf of Mexico that were made accessible following this inventory by the Gulf of Mexico Energy Security Act of 2006.

[31] U.S. Mineral Management Service, *Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources* (Feb. 2006) (online at *http://www.mms.gov/revaldiv/PDFs/FinalInvRptToCongress050106.pdf*).

[32] Energy Information Administration, *Analysis of Crude Oil Production in the Arctic National Wildlife Refuge* (May 2008) (online at *http://www.eia.doe.gov/oiaf/servicerpt/anwr/index.html*).

[33] Energy Information Administration, *Analysis of Crude Oil Production in the Arctic National Wildlife Refuge*, at 11 (May 2008) (online at *http://www.eia.doe.gov/oiaf/servicerpt/anwr/index.html*).

[34] Conventional oil is crude oil and natural gas liquids produced from underground reservoirs by means of conventional wells. Non-conventional oil includes oil shales, oil sands, and extra-heavy crude.

[35] Energy Information Administration, *Long-term Global Oil Scenarios: Looking Beyond 2030* (Presentation to the EIA 2008 Energy Conference, Apr. 7, 2008). EIA uses 20.6 trillion barrels as its base case.

rels worldwide. At the same time, generating new oil supply is proving increasingly difficult. New oil fields are generally in expensive and hard-to-reach places like deep water areas in the Gulf of Mexico.[36] Even with advances in technology, the average size of discoveries per exploratory well is around 10 million barrels, which is half the output of wells dug between 1965 and 1979.[37]

The shrinking margin between stagnant supply and soaring demand provides yet another reason that the United States and the world need to begin to look beyond oil to meet our growing energy needs.

SOLUTIONS TO THE OIL DEPENDENCE

Addressing our dependence on oil is primarily a transportation challenge. The U.S. transportation sector produces roughly a third of total U.S. greenhouse gas emissions, accounts for approximately 69 percent of total U.S. oil consumption, and is 95 percent dependent upon petroleum. Reducing both oil consumption and global warming pollution in the transportation sector will require the United States to address three interrelated issues—the efficiency of our vehicles, the fuels that power them, and how much we drive them.

VEHICLES AND FUEL—INCREASE FUEL ECONOMY AND TRANSITION TO ELECTRIC DRIVE

Implementing higher fuel economy standards is one of the most important means to increase energy independence of the United States. The Energy Independence and Security Act of 2007 (EISA) mandated that fuel economy standards increase by at least 40 percent, to 35 mpg, by 2020. On May 19, 2009, President Obama announced his Administration's intent to harmonize fuel economy standards set by the U.S. Department of Transportation, tailpipe standards set by the Environmental Protection Agency and California's clean car regulations, such that the automotive fleet would achieve the equivalent of 35.5 miles per gallon by 2016.

EISA also authorized a number of research, development, demonstration, and deployment programs for plug-in hybrid, advanced vehicle battery, and other advanced vehicle technologies. Section 136 of EISA authorized $25 billion in loans to support retooling of U.S. auto manufacturing facilities to produce more fuel efficient vehicles—a program that was fully funded under H.R. 2638, the continuing resolution enacted September 30, 2008.

The development of plug-in hybrid electric vehicles (PHEVs) and all-electric vehicles holds great potential to enhance America's energy independence and reduce greenhouse gas emissions. Electric motors are three to four times more efficient at turning their fuel into useful work than either gasoline or diesel engines. They also consume no energy while idling and utilize regenerative braking to recharge the vehicle's battery. Every major automaker has announced plans to produce all-electric vehicles or PHEVs for the U.S. market, to be made available as soon as 2010.

[36] Simmons & Company International, The *21st Century Energy Crisis Has Arrived* (Presentation to the CFA Society of Atlanta, Apr. 16, 2008).
[37] International Energy Agency, *World Energy Outlook 2006* at 90 (2006).

The electric grid is an important and readily available piece of infrastructure that could power the transport sector in the United States. The electricity infrastructure is currently designed to meet the highest expected demand for power, which only occurs for a few hundred hours a year. During the night more than 50 percent of generating capacity lies idle. By utilizing this idle generating capacity, the Department of Energy's Pacific Northwest National Laboratory found that up to 84 percent of U.S. cars, pickup trucks, and sport utility vehicles can be transitioned to electricity without building a single new power plant.[38] An 84 percent level of electric vehicle penetration is estimated to eliminate the consumption of 6.5 million barrels of oil equivalent per day, more than all the oil currently imported from OPEC countries.[39] With the national average cost of electricity of 8.5 cents per kilowatt hour, an electric vehicle runs on an equivalent of around 75 cents per gallon.[40]

PHEVs slash greenhouse gas emissions, even with our current electricity fuel mix. Even given the current U.S. electricity generation profile, almost half of which is comprised of carbon-intensive coal combustion, the nationwide deployment of battery-powered electric vehicles would still reduce greenhouse gas emissions by as much as 27 percent as compared to equivalent gasoline-powered vehicles.[41] Greenhouse gas benefits will improve in the future as renewable and other low- or no-carbon electricity generation increases.

The American Recovery and Reinvestment Act included substantial funding to advance the development of batteries for electric vehicles.

REDUCE VEHICLE MILES TRAVELED WHILE IMPROVING QUALITY OF LIFE

To meet our energy security and global warming pollution reduction goals, we must provide options for individuals who wish to get from place to place without driving. Americans drive much more than individuals in other advanced industrial countries—5,700 miles a year compared with 2,368 in Japan and 3,961 in Germany as of 1997.[42] The number of vehicle miles traveled (VMT) nearly quadrupled between 1960 and 2000[43] and is projected to increase another 60 percent by 2030.[44] If left unchecked, this projected VMT growth will substantially reduce the oil consumption and global warming pollution benefits of increased fuel economy and cleaner fuels.

A broad array of policies can help communities to "grow smarter," while reducing VMT. Increasing public transit and creating more pedestrian and bicycle-friendly infrastructure can encourage

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[38] Pacific Northwest National Laboratory, *Impacts Assessment of Plug-In Hybrid Vehicles on Electric Utilities and Regional U.S. Power Grids, Part 1: Technical Analysis*, (2006) (online at *http://energytech.pnl.gov/publications/pdf/PHEV*_Feasibility_Analysis_Part1.pdf).

[39] *Electric Cars—How Much Does It Cost per Charge?*, Scientific American (March 13, 2009) (online at *http://www.scientificamerican.com/article.cfm?id=electric-cars-cost-per-charge*).

[40] *Id.*

[41] Pacific Northwest National Laboratory, *Impacts Assessment of Plug-in Hybrid Vehicles on Electric Utilities and Regional U.S. Power Grids Part I: Technical Analysis*, at 13 (2007).

[42] Federal Highway Administration, *Our Nation's Highways—2000* (2000) (online at *http://www.fhwa.dot.gov/ohim/onh00/bar4.htm*).

[43] Federal Highway Administration, *Our Nation's Highways—2000*, at 24 (2000) (online at *http://www.fhwa.dot.gov/ohim/onh00/bar4.htm*).

[44] U.S. Department of Transportation, *Transportation Vision 2030 at 5* (Jan. 2008) (online at *http://www.rita.dot.gov/publications/transportation_vision*_2030/pdf/entire.pdf).

people to travel without using a car. Planning roads and pathways to create shorter, direct links to destinations can limit car distances. Communities that implement such improvements reduce global warming pollution, balance local budgets by avoiding infrastructure costs, and reduce family gasoline bills.[45]

Although most of these policies are implemented at the local, State, or regional level, federal policy can play a substantial role in supporting them.

THE ELECTRICITY CHALLENGE

The overall fuel mix for power generation in the United States has remained relatively stable over the past decade. In 2007, coal remained the leading fuel source, accounting for 49 percent of generation, followed by natural gas with 21 percent, and nuclear with 19 percent. Hydroelectric power accounted for 6 percent, and non-hydro renewables provided 3 percent.[46] New capacity is shifting from reliance on coal to natural gas and wind energy. In 2008, natural gas accounted for 48 percent of all new generating capacity, wind accounted for 42 percent, and coal accounted for less than 6 percent—with solar, biomass, and geothermal making up most of the balance.[47]

COAL

Coal is a key fuel for the electric power sector, both for the United States and the rest of the world. The United States has the largest coal reserves in the world (28% of global reserves) and produces more than a billion short tons of coal annually.[48] More than 90% of U.S. coal consumption is used for electricity generation, and coal powers nearly 50% of all U.S. electricity generation.[49] China and India, two of the largest, fastest growing economies in the world, both have large coal reserves and rely on coal for the majority of their electricity generation (78% for China and 69% for India).[50]

Greenhouse gas emissions from coal use present a serious challenge in addressing global climate change. Because of coal's high carbon content, coal-fired power plants emit roughly twice as much carbon dioxide (CO_2) per unit of electricity as natural gas-fired plants. Existing coal-fired plants account for almost a third of U.S. CO_2 emissions. Globally, CO_2 emissions from coal have grown from 39% in 1990 to 41% in 2005, and are projected to reach 44% by 2030 absent an international agreement to limit emissions.[51]

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[45] The Brookings Institution, *Investing in a Better Future: A Review of the Fiscal and Competitive Advantages of Smarter Growth Development Patterns* (March 2004) (online at *http://www.brookings.edu//media/Files/rc/reports/2004/03metropolitanpolicy_muro/200403_smartgrowth.pdf*).

[46] Energy Information Administration, *Annual Energy Review 2007*, at 224–26 (2008).

[47] Energy Information Administration, *Electric Power Annual with data for 2007, Table 2.4 (Planned Nameplate Capacity Additions from New Generators, by Energy Source, 2008 through 2012)* (2009) (online at *http://www.eia.doe.gov/cneaf/electricity/epa/epat2p4.html*).

[48] Energy Information Administration, *Annual Coal Report* (2007) (online at *www.eia.doe.gov/neic/infosheets/coalreserves.html and www.eia.doe.gov/cneaf/coal/page/acr/acr*_sum.html).

[49] U.S. Environmental Protection Agency, *Draft U.S. Greenhouse Gas Inventory Report* (2009) (online at *www.epa.gov/climatechange/emissions/downloads09/07ES.pdf*).

[50] World Coal Institute, *Coal Facts 2008* (online at *http://www.worldcoal.org/pages/content/index.asp?PageID=188*).

[51] Energy Information Administration, *International Energy Outlook* (2008) (online at *www.eia.doe.gov/oiaf/ieo/emissions.html*).

Regulatory uncertainty concerning both State and federal approaches to controlling greenhouse gas emissions has already had an impact on the construction of new coal-fired electric generating capacity. Multiple coal-based projects have been canceled or delayed over the past two years, and uncertainty over climate policy has played a role.[52] With respect to future capacity expansion, the Energy Information Administration (EIA), in its preliminary 2009 Annual Energy Outlook, projects that a total of 46,000 megawatts of coal-fired generating capacity will be added in the United States from 2007 to 2030.[53] This represents less than half of the projected expansion (103,000 megawatts) forecast in the 2008 reference case. EIA states:

> Beyond the well-known uncertainties with respect to future demand growth and fuel, labor, and new plant costs, [energy companies] also must consider the potential impact of concerns surrounding energy-related GHG [greenhouse gas] emissions. Even without the enactment of Federal laws and policies limiting U.S. GHG emissions, regulators and the investment community are beginning to push energy companies to shift their investments towards less GHG-intensive technologies.[54]

A central element in discussions concerning federal climate change policy is how to reconcile the continued use of coal with the objective of achieving significant reductions in greenhouse gas emissions. While multiple strategies exist to reduce coal-related greenhouse gas emissions, a consensus has emerged that carbon capture and storage (CCS) technologies, involving physical capture of CO_2 at power plants and other major point sources and compression and injection of CO_2 into deep geological reservoirs, provide a likely path forward.

CARBON CAPTURE AND SEQUESTRATION

There are three principal technology options for capturing CO_2 emissions at coal-based power plants: (1) pre-combustion capture using integrated gasification combined cycle ("IGCC") technology; (2) pre-combustion capture using oxy-fuel combustion; and (3) post-combustion capture using solvents or membranes.[55]

In an IGCC plant, coal is processed in a reactor with steam and oxygen before combustion to produce a mixture consisting mainly of carbon monoxide and hydrogen known as "synthesis gas" or "syngas." The carbon monoxide is then mixed with steam to produce CO_2 and more hydrogen. The hydrogen becomes a carbon-free fuel to power the plant, while the CO_2 can be compressed for transport and ultimate storage. There are four IGCC plants in operation worldwide, including two in the United States.

Oxy-fuel combustion eliminates nitrogen from exhaust gases by burning the fuel in pure oxygen or a mixture of pure oxygen and CO_2-rich recycled flue gas. The main emissions from this process

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[52] National Energy Technology Laboratory, *Tracking New Coal-Fired Power Plants* (Jan. 5, 2009) (online at *www.netl.doe.gov/coal/refshelf/ncp.pdf*).

[53] Energy Information Administration, *Annual Energy Outlook Early Release Overview* (2009) (online at *www.eia.doe.gov/oiaf/aeo/overview.html*).

[54] Energy Information Administration, *Annual Energy Outlook Early Release Overview* (2009) (online at *www.eia.doe.gov/oiaf/aeo/overview.html*).

[55] *See, e.g.,* Intergovernmental Panel on Climate Change, *Special Report on Carbon Capture and Storage* (IPCC CCS Report)(2005) (online at *http://arch.rivm.nl/env/int/ipcc/pages_media/SRCCS-final/IPCCSpecialReportonCarbondioxideCaptureandStorage.htm*).

are CO_2 and water. Once compressed, dried, and purified, the CO_2 is ready for transport and storage. Although the key elements of oxy-fuel combustion technology are currently in commercial use, it has not yet been deployed for CO_2 capture on a commercial scale.

Post-combustion capture systems use a solvent or a membrane to separate CO_2 from the power plant's flue gases. Post-combustion capture technologies are already commercially available and are used to capture CO_2 from coal- and gas-fired plants in the food and beverage and chemical-production industries. They would have to be significantly scaled up from current applications to be used in large commercial power plants.

After CO_2 is captured, it is compressed into a dense fluid (supercritical) state for transport via pipeline to an injection site. Three types of geologic formations are well-suited to long-term storage of injected CO_2: depleted oil and gas fields, saline formations, and deep coal seams. Surveys indicate that both global and U.S. storage capacity is potentially vast.[56] The Department of Energy projects that U.S. domestic geologic formations "have at least enough capacity to store several centuries' worth of point source emissions" from the United States.[57] There appears to be a good correlation between emissions sources and geological basins suitable for long-term storage, and preliminary assessments suggest that risks to human health and the environment from large-scale injection of CO_2 are limited.[58] Underground injection of naturally produced CO_2 has been used since the early 1970s as part of enhanced oil recovery projects, and there are several major commercial projects around the world that inject captured CO_2 for underground storage. A variety of new projects are now under development.

Although most of the technologies on which CCS is based are already demonstrated, they have not yet been integrated or implemented at the scale needed to mitigate power plant emissions. Applying CCS to a single 500 megawatt coal-fired plant, for example, could involve capture and injection of 2–3 million metric tons of CO_2 annually.

In addition to technical concerns, there are economic obstacles to widespread deployment of CCS. For example, carbon capture technologies typically require significant amounts of power to operate; the energy penalty imposed and consequent requirement for "make-up" power carry a cost. The overall capital and operating costs to capture and sequester carbon are also substantial, though such costs are expected to decrease over time as technologies mature.

Such costs, in the absence of appropriate regulatory drivers, will impede commercial-scale deployment of CCS technologies. While current cost estimates for CCS are highly uncertain, they provide some sense of the point at which CCS will become a feasible mitigation strategy for coal-fired plants and other industrial emitters. A 2008 McKinsey study estimated between $38–57 per ton of CO_2 abated for its reference plants, though it put the cost for early dem-

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[56] *See, e.g.*, National Energy Technology Laboratory, *Carbon Sequestration Atlas of the United States and Canada* (2007) (online at *www.netl.doe.gov/technologies/carbon*__seq/refshelf/atlas/).

[57] U.S. Department of Energy, *Carbon Sequestration: Technology Roadmap and Program Plan 2005*, at 4 (2005) available at *http://fossil.energy.gov/programs/sequestration/publications/programplans/2005/sequestration*__roadmap__2005.pdf.

[58] IPCC CCS Report; Massachusetts Institute of Technology, *The Future of Coal: Options for a Carbon-Constrained Economy* (2007) (online at *http://web.mit.edu/coal/*) (MIT Future of Coal Report).

onstration projects at $77–115 per ton.[59] Other studies estimate that CO_2 allowance prices would have to range anywhere from $30–60 per ton in order to make CCS economically viable.[60] Because State utility regulation would likely prevent recovery of this cost differential between controlled and uncontrolled plants, utilities are unlikely to invest in CCS in the absence of a regulatory requirement to do so.

Large-scale underground injection and storage of CO_2 also presents a series of legal and regulatory questions. EPA has issued a proposed rulemaking addressing the subsurface aspects of sequestration under the Safe Drinking Water Act's Underground Injection Control program, but as yet there is no comprehensive regulatory regime for commercial-scale injection either at the federal or State level.[61] Some of these questions—such as those related to subsurface property rights—will likely be answered at the State level.

Congress has taken some steps to promote development of CCS-related technologies. The Energy Independence and Security Act of 2007 authorized a research, development, and demonstration program for CCS technologies and directed the Department of the Interior to gather detailed data on potential geologic storage capacity. The American Recovery and Reinvestment Act of 2009 provided funds of $3.4 billion to the Department of Energy for use in fossil energy projects, portions of which will likely be used to support CCS demonstration projects.

NATURAL GAS

The United States accounts for more than 22 percent of global consumption of natural gas, but has only 3.4 percent of global reserves. Domestic production satisfies 80 percent of U.S. demand—and more than 80 percent of U.S. imports come from Canada.[62]

Natural gas has become the fuel of choice for new power plants in the United States. Natural gas accounted for nearly half of new generating capacity built in the United States in 2008. In addition, natural gas is a critical feedstock and fuel for U.S. manufacturing, accounting for 29 percent of U.S. natural gas use. Natural gas prices have been highly volatile in recent years, with large swings driven by high demand in some years, and more recently, downward pressure on prices due to reduced demand and increased domestic production.

NUCLEAR POWER

Electric utilities have recently filed 17 applications with the Nuclear Regulatory Commission for 26 new reactor operating licenses. In recent years, the projected cost of a new 1,000 megawatt reactor has increased from approximately $2 billion to $6–8 billion.[63] In

[59] McKinsey & Company, *Carbon Capture & Storage: Assessing the Economics* (Sept. 2008) (online at *www.mckinsey.com/clientservice/ccsi/pdf/CCS_Assessing_the_Economics.pdf*).

[60] *See, e.g.,* MIT Future of Coal Report; and McKinsey & Company, *Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?* (Dec. 2007) (online at *www.mckinsey.com/clientservice/ccsi/pdf/US_ghg_final_report.pdf*).

[61] Environmental Protection Agency, *Federal Requirements Under the Underground Injection Control Program for Carbon Dioxide Geologic Sequestration Wells* (Jul. 25, 2008) (online at *www.epa.gov/fedrgstr/EPA-WATER/2008/July/Day-25/w16626.htm*).

[62] Energy Information Administration, *International Energy Outlook 2008*, at 44 (Table 6) (June 2008) (online at *http://www.eia.doe.gov/oiaf/ieo/pdf/nat_gas.pdf*).

[63] Letter from the Nuclear Energy Institute to Rep. Edward J. Markey (Oct. 21, 2008).

light of these costs and risks, it is unclear whether private financing would be available for new nuclear facilities without the assurance of federal government loan guarantees.

The existing Department of Energy Title XVII loan guarantee program has authority to provide up to $51 billion in loan guarantees, $18.5 billion of which is specifically set aside for nuclear power. The Department has received applications for federal loan guarantees from 21 proposed nuclear power plants, totaling $122 billion in requested assistance.[64]

Nuclear power faces a challenge in remaining competitive in electricity markets where low cost generation has priority dispatch to the grid. While the operating costs of nuclear power are comparatively low, it continues to be an expensive investment for electricity ratepayers due to large up-front capital costs.

RENEWABLE ENERGY

Renewable electricity currently generates 8.4 percent of the country's electricity, with non-hydroelectric renewables responsible for just 2.5 percent.[65] Reaching 20 percent of total generation by 2020 is an ambitious, but achievable, target for renewable electricity.

The Committee believes that adoption of a national renewable electricity standard (RES) should be a centerpiece of our national energy strategy. State-level RES requirements have been a key driver of renewable energy growth in the U.S. Seventy-one percent of the population now lives in one of the 28 states with these mandatory policies in place. More than half of the non-hydroelectric renewable electricity capacity added in the U.S. over the last decade has occurred in States with RES programs, with little or no impact on consumer electricity rates.[66] During the 110th Congress, the House twice passed a national RES of 15 percent by 2020—with the option to meet up to 4 percent with efficiency—but the measure failed to pass the Senate.

The renewable resources outlined below are among the most likely to contribute significantly to the U.S. and global electricity supply over the next two to three decades.

WIND

More than 27,000 megawatts of new wind capacity was installed worldwide in 2008, nearly a quarter of which was installed in the United States.[67] Department of Energy research suggests generating 20 percent of electricity from wind in the United States is an ambitious yet feasible scenario if certain challenges are overcome.[68] With policy support, the United States is projected to have more than 60,000 megawatts of wind installed by 2012 and by 2016 it

[64] *Nuclear Power: 17 Apply for DOE Loan Guarantees, Far Exceeding Available Cash*, Greenwire (Oct. 2, 2008).

[65] Energy Information Administration, Annual Energy Review 2007: *Table 8.2b Electricity Net Generation: Electric Power Sector, Selected Years, 1949–2007* (June 23, 2008).

[66] Lawrence Berkeley National Laboratory, *Renewables Portfolio Standards in the United States: A Status Report with Data Through 2007* (Apr. 2008) (online at http://eetd.lbl.gov/ea/EMS/reports/lbnl_154e-revised.pdf).

[67] World Wind Energy Association, *World Wind Energy Report 2008* (Feb. 2009) (online at http://www.wwindea.org/home/images/stories/worldwindenergyreport2008_s.pdf).

[68] U.S. Department of Energy, *20 percent Wind Energy By 2030: Increasing Wind Energy's Contribution to the U.S. Electricity Supply* (July 2008) (online at http://www1.eere.energy.gov/windandhydro/pdfs/41869.pdf).

could reach 112,000 megawatts, surpassing nuclear capacity in the United States.

As wind technology continues to improve, prices are falling and capacity factors are increasing. The cost of wind energy over the past 20 years has dropped from 40 cents per kWh to 4 to 6 cents per kWh at good sites. While most new wind turbines in the United States produce 1.5 to 2 megawatts of power, superconducting materials may enable the construction of 10 megawatt turbines in the near future. Increases in the capacity factor of the turbines or the percentage of time in which they are producing at their full capacity—have grown 11 percent over the past two years and will continue to increase as the technology improves.

SOLAR

With more energy in the form of solar radiation striking the Earth's surface in an hour than humanity uses in an entire year, the available solar energy resource is enormous. Capturing this energy and converting it into electricity is primarily done through photovoltaic cells that convert sunlight into direct electrical current and concentrating solar power, which concentrates the sun's energy using huge mirrors or lenses and then uses this heat to run a conventional turbine.

Solar photovoltaics (PV) have experienced explosive growth over the last several years. World capacity grew 62 percent in 2007 alone[69] and solar PV installations in the United States grew by more than 80 percent in 2007.[70] Over the next two decades, solar PV will become a major source of power—both here in the United States and globally. Solar PV is projected to grow from a $20 billion industry in 2007 to a $74 billion industry within a decade. A study from the National Renewable Energy Laboratory found that installed capacity in the United States could climb to 10,000 megawatts by 2015, 26,000 megawatts by 2020, and ultimately more than 100,000 megawatts by 2030 with the passage of the critical 8-year extension of the investment tax credits included in the financial rescue package enacted in October, 2008.[71]

Concentrating solar power (CSP) systems deliver large-scale, centralized electricity generation from solar energy. CSP systems are generally utility-scale projects with many acres of mirrors and lenses that can produce dozens to hundreds of megawatts of electrical power. The National Renewable Energy Laboratory has identified the potential for nearly 7,000,000 megawatts of solar thermal power generation in the southwestern United States, roughly seven times current U.S. electric generating capacity. More than 4,000 megawatts of solar thermal projects are currently in development nationwide, and Environment America has projected 80,000 megawatts could be built by 2030 with investment tax credit sup-

[69] Solarbuzz, Marketbuzz 2008: *Annual World Solar Photovoltaic industry Report* (2008).

[70] Earth Policy Institute, *Solar Cell Production Jumps 50 Percent* in 2007 (Dec. 27, 2007) (online at http://www.earth-policy.org/Indicators/Solar/2007.htm).

[71] National Renewable Energy Laboratory, *Quantifying the Benefits of Extending the Solar* ITC (Feb. 2008).

port.[72] The cost of energy from solar thermal power plants is estimated to be approximately 14 to 16 cents/kWh.[73]

GEOTHERMAL

The United States has about 35 percent of the world's installed capacity of geothermal energy, with about 2,500 megawatts connected to the grid across six States. While several new facilities are in construction around the country, the amount of electricity produced from geothermal energy has essentially been flat for the past two decades. New facilities are estimated to be able to produce base load electricity for 5 to 7 cents/kWh.[74]

The United States has massive, untapped geothermal energy resources. Scientists with the U.S. Geological Survey (USGS) recently found that the electric generation potential from currently identified geothermal systems distributed over 13 U.S. states is more than 9,000 megawatts. Their estimated power production potential from yet to be discovered geothermal resources is more than 30,000 megawatts. An additional 500,000 megawatts may be available by harnessing geothermal reservoirs characterized by high temperature, but low permeability, rock formations.[75]

An MIT study estimated that recovering a small fraction of the available resources using conventional geothermal as well as enhanced (or engineered) geothermal systems, could feasibly yield 100,000 megawatts of electrical power in the United States by 2050.[76] And a study sponsored by the Western Governors Association found 5,600 megawatts of new geothermal capacity could be added through 2015 and 13,000 megawatts within the next 20 years in their 13-State region.[77]

BIOMASS

Biomass currently supplies more electricity in the United States than wind, solar, and geothermal power combined, and the potential for additional generation from this energy source is vast. Biomass available for electricity generation includes residues from forests, primary mills, and agriculture, as well as dedicated energy crops and urban wood wastes. Biomass can be used as the sole fuel source for power plants, or it can be used in conventional power plants to substitute for a portion of the traditional fuel, typically coal, in a process called co-firing. While most co-firing plants use biomass for between 1 and 8 percent of heat input,[78] biomass can effectively substitute for up to 20 percent of the coal used in the

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[72] Solar Energy Industries Association, U.S. Solar Industry: *2007 Year in Review* (*2007*) (online at http://seia.org/galleries/pdf/Year_in_Review_2007_sm.pdf).

[73] Environment America Research and Policy Center, *On the Rise: Solar Thermal Power and the Fight Against Global Warming* (Spring 2008) (online at http://www.environmentcalifornia.org/uploads/EX/qu/EXqur2dJBZQbJESwUtulZA/On-The-Rise.pdf).

[74] California Energy Commission, *Comparative Cost of California Central Station Electricity Generation Technologies: Final Staff Report* (June 2003) (online at http://www.energy.ca.gov/reports/2003-06-06_100-03-001F.PDF).

[75] U.S. Geological Survey, *Fact Sheet: Assessment of Moderate- and High-Temperature Geothermal Resources of the United States* (2008) (online at http://pubs.usgs.gov/fs/2008/3082/pdf/fs2008-3082.pdf).

[76] Massachusetts Institute of Technology, *The Future of Geothermal Energy: Impact of Enhanced Geothermal Systems on the United States in the 21st* Century, at 1–3 (2006) (online at http://www1.eere.energy.gov/geothermal/pdfs/future_geo_energy.pdf).

[77] American Solar Energy Society, *Tackling Climate Change in the U.S.*, at 153 (Jan. 2007) (online at http://ases.org/images/stories/file/ASES/climate_change.pdf).

[78] Energy Information Administration, *Biomass for Electricity Generation* (online at http://www.eia.doe.gov/oiaf/analysispaper/biomass/).

boiler.[79] Certain biomass can have important greenhouse gas benefits, and co-firing with biomass also lowers fuel costs, avoids landfilling, and reduces emissions of sulfur oxide and nitrogen oxide.

An EIA analysis of the impacts of a 15 percent national renewable electricity requirement found that electricity production from biomass could grow by a factor of eight between 2005 and 2030.[80] Most of this generation would come in the southeastern United States, where nearly a third of the country's biomass feedstock potential exists.[81] The EIA found that the Southeast region could meet nearly its entire 15 percent renewable requirement through 2020 with indigenous biomass resources.[82]

TRANSMISSION PLANNING

Lack of adequate transmission capacity is a barrier to the wide-scale deployment of renewable electricity. Transmission lines must be constructed to move renewable electricity from rural areas and offshore, where it is most abundant and most reliably generated, to population centers where it can be used. Federal leadership will be critical in helping to ensure that efficient transmission is built.

BOOSTING EFFICIENCY

The largest and least expensive way to expand energy resources and reduce global warming pollution is by improving energy efficiency. Numerous studies have confirmed the basic notion that the best and cheapest power plant is the one we never have to build—because greater efficiency reduces demand for power. These efficiency investments would yield positive economic returns over their lifecycles because savings on the cost of energy would exceed the cost of the initial investment.

Historically, energy efficiency has been an important positive factor in the U.S. energy situation. The amount of energy consumed per dollar of gross domestic product (GDP) fell to about 58 per cent in 2006 of the amount of energy required per dollar of GDP in 1980.[83] A recent study by the American Council for an Energy-Efficient Economy (ACEEE) found that approximately three-quarters of the incremental energy demand projected in the 1970s was met by greater energy efficiency rather than actual energy supply increases.[84]

Efficiency measures can reduce demand for electricity by nearly 25 percent over the next 20 years. A 2004 survey by the American Council for an Energy Efficiency Economy (ACEEE) of 11 different studies showed that the median achievable potential for electricity

[79] Federal Energy Management Program, *Biomass Cofiring in Coal-fired Boilers* (May 2004) (online at http://www1.eere.energy.gov/femp/pdfs/fta_biomass_cofiring.pdf).

[80] Energy Information Administration, *Impacts of a 15–Percent Renewable Portfolio Standard (Table 2: Summary Results)*, at 9 (June 2007) (online at http://www.eia.doe.gov/oiaf/servicerpt/prps/pdf/sroiaf(2007)03.pdf).

[81] Oak Ridge National Laboratory, Biomass *Feedstock Availability in the United States: 1999 State Level Analysis* (Jan. 2000) (online at http://bioenergy.ornl.gov/resourcedata/index.html).

[82] Energy Information Administration, Regional *Generation Impacts of a 15-Percent Renewable Portfolio Standard* (June 2007) (online at http://www.eia.doe.gov/oiaf/servicerpt/prps/pdf/regional_generation.pdf).

[83] Energy Information Administration, *Annual Energy Review 2007* (2008); U.S. Department of Commerce, Gross Domestic Product Data (in constant 2000 dollars) from Bureau of Economic Analysis, (May, 2009).

[84] Ehrhardt-Martinez, Karen, and Laitner, John A. "Skip", *The Size of the U.S. Energy Efficiency Market: Generating a More Complete Picture*, ACEEE Report Number E083 (May 2008).

efficiency gains was 24 percent over the next 20 years (an average improvement of 1.2 percent per year).[85] The same study found that a 9 percent reduction of natural gas consumption is achievable through efficiency measures in the next 15 to 20 years.[86]

Efficiency is the cheapest way of meeting demand for electricity. Efficiency measures are already available at a cost of roughly $0.03/kWh, compared to nearly $0.07/kWh for coal- or gas-fired generation. This differential will only grow when generators of fossil fuel-powered electricity must pay to emit global warming pollution. Energy efficiency also offers a number of other advantages compared to meeting demand through additional generation, including shorter lead-times, no energy conversion losses, a greatly reduced environmental footprint, and economic stimulus and job creation benefits.

Several studies have shown that investment in complementary efficiency programs can substantially reduce the overall cost of climate legislation. A 2006 ACEEE analysis of the Northeast Regional Greenhouse Gas Initiative (RGGI) showed that, by doubling current efficiency investments in the region, wholesale power market prices could be kept flat through 2020.[87] A doubling of energy efficiency investment would also reduce carbon allowance prices by about one-third below baseline allowance prices in 2024, and would increase regional economic growth by 0.6 percent in 2021 relative to the base case. Modeling by Resources for the Future predicted that devoting 100 percent of RGGI auction proceeds to energy efficiency measures, instead of 25 percent, would reduce allowance prices by 25 to 30 percent.

Market barriers prevent optimal adoption of energy efficiency measures. For example, the buildings and appliances sectors are characterized by split incentives. While home buyers or users of appliances would achieve lifecycle cost savings from more efficient homes or appliances, builders and manufacturers avoid energy efficiency improvements that would increase up-front costs. In addition, consumers generally lack adequate information to distinguish among buildings and products on the basis of efficiency. In addition, consumers may apply irrationally high discount rates in making purchasing decisions—requiring that a more efficient home or product "pay back" the increased cost within a very short time frame, even though the consumer would be financially better off in the medium- to long-term with the more efficient home or product. In the power sector, electric utilities often are the actor best positioned to increase demand-side efficiency, but have a disincentive to do so because revenues are based on the volume of electricity sold. Because a price on global warming pollution does not address these and other market barriers, additional policies are necessary to achieve the full cost-saving benefits of efficiency measures.

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[85] Steven Nadel et al., *The Technical, Economic and Achievable Potential for Energy-Efficiency in the U.S.—A Meta-Analysis of Recent Studies*, Proceedings of the 2004 ACEEE Summer Study on Energy Efficiency in Buildings (2004).

[86] Steven Nadel et al., *The Technical, Economic and Achievable Potential for Energy-Efficiency in the U.S.—A Meta-Analysis of Recent Studies*, Proceedings of the 2004 ACEEE Summer Study on Energy Efficiency in Buildings (2004).

[87] Steven Nadel et al., *The Technical, Economic and Achievable Potential for Energy-Efficiency in the U.S.—A Meta-Analysis of Recent Studies*, Proceedings of the 2004 ACEEE Summer Study on Energy Efficiency in Buildings (2004).

INCREASING EFFICIENCY OF BUILDINGS AND APPLIANCES

Buildings and appliances represent the areas of greatest emission abatement and energy- and cost-saving potential. Efficiency improvements in this category include lighting retrofits, higher performance for appliances, improvements in heating, ventilation and air conditioning systems, as well as better building envelopes and building control systems. Over the next 30 years, the built environment in the United States is expected to increase by an amount roughly equal to 70 percent of today's existing building stock—providing a crucial opportunity for energy savings and emission reductions.[88]

Buildings contribute up to 48 percent of U.S. global warming pollution, the single largest source of emissions.[89] In 2007 more than three-quarters of the electricity generated by U.S. power plants was used in commercial, residential, and industrial buildings,[90] and roughly one-third of the natural gas consumed was used for residential and commercial use.[91] Most of this energy consumption, and resulting emissions, stem from the energy used to operate lighting, heating, and cooling in buildings, and could be considerably decreased.

Building codes are critically important in driving energy efficiency. In the 110th Congress, the House passed H.R. 6899, which included provisions to encourage states and localities to adopt updated codes that include requirements for increased energy efficiency. Specifically, these provisions would have required DOE and States to adopt energy codes for new buildings that improve efficiency by 30 percent by 2010 and 50 percent by 2020. Incentive funding would have been offered for adopting the code and training officials to implement the codes. Such codes are estimated to avoid 1.5 billion metric tons of CO_2 per year by 2030 and reduce the need to build more than 30 new large coal-fired power plants over the coming decades. The Senate did not act on this legislation before the 110th Congress adjourned.

SMART GRID

Modernization of the electricity transmission and distribution system—particularly through Smart Grid investments—promises substantial benefits in increased system efficiency, reliability, and flexibility, and reduced peak loads and electricity prices. Smart Grid technologies pair digital communications and information technology with a variety of grid functions, including monitoring, measuring, and responding to electricity demand and congestion; sensing and locating system disruptions or security threats and deploying automated protective responses; implementing "smart" meters in homes and businesses that allow consumers to receive time-of-use pricing information and to communicate consumer pref-

[88] Pew Center on Global Climate Change, *Toward a Climate Friendly Built Environment*, at 3–4 (June 2005).

[89] American Institute of Architects, *Architects and Climate Change* (online at http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aias078740.pdf).

[90] Energy Information Administration, *Annual Energy Review 2007, Table 2.1a (Energy Consumption by Sector, Selected Years, 1949–2007)* (June 23, 2008) (online at http://www.eia.doe.gov/aer/pdf/aer.pdf). Approximately 40 percent of energy consumed in 2007 was used in residential and commercial buildings alone.

[91] Energy Information Administration, *Natural Gas Consumption by End Use 2007* (online at http://tonto.eia.doe.gov/dnav/ng/ng__cons__sum__dcu__nus__a.htm).

erences to the grid; and installing "smart" appliances that can be programmed to respond to communications from the grid regarding pricing or load. Collectively, these technologies can substantially increase the efficiency of the grid and can reduce peak load demand, both of which reduce the need for construction of new generation.[92] In addition, an array of other grid modernization technologies—such as the deployment of high-efficiency superconductor power distribution cables—can further enhance grid efficiency and reliability.

GLOBAL WARMING

A clear scientific consensus now holds that global warming is happening, that manmade greenhouse gas emissions are largely responsible, and that the consequences of failing to reduce such emissions will be catastrophic.

THE SCIENTIFIC CONSENSUS ON CLIMATE CHANGE

Global warming refers to the global temperature rise and subsequent impacts from the increase of heat-trapping pollution in the atmosphere as a result of human activities, primarily the combustion of fossil fuels. This additional pollution enhances the so-called "greenhouse effect" and warms the Earth. The IPCC declared in its Fourth Assessment Report, released in 2007, that the evidence for warming is "unequivocal"[93] and that most of the observed warming is very likely—greater than 90 percent certainty—due to the increase of global warming pollution from human activities.[94] Over the last century, the global average temperature has increased 1.4 °F, with almost 90 percent of the warming occurring over the last 50 years.[95]

Certain gases in the atmosphere trap heat that would otherwise escape into space. There are a number of such anthropogenic greenhouse gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), high-altitude ozone, and certain man-made industrial gases, including chlorofluorocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

The impact of each gas on global warming is a combination of its ability to trap heat, its concentration in the atmosphere, and how long it stays in the atmosphere. For example, while one molecule of methane traps more heat than one molecule of CO_2, the higher concentration and longer atmospheric lifetime of CO_2 means it has contributed more to global warming than methane has. Most efforts to control global warming pollution have focused on the CO_2 emissions from the burning of fossil fuels because they have the greatest effect and we have the greatest control over them.

Since the Industrial Revolution, the concentration of CO_2 in the atmosphere has increased from 280 parts per million (ppm) to more

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[92] See, e.g, House Committee on Energy and Commerce, *Hearing on Facilitating the Transition to a Smart Electric Grid* (110th Cong.) (May 3, 2007).

[93] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 5 (2007).

[94] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 3 (2007).

[95] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 5 (2007).

than 380 ppm.[96] This 100 ppm change is the same increase as the world experienced from the last ice age about 20,000 years ago until just before the 1800s.[97] Human activities have changed the atmosphere as much in 200 years as natural variations changed it over 20,000 years. The current level is higher than any level seen in the last 650 thousand years.[98]

Scientists can model the temperature effects of natural and human-induced, or anthropogenic, changes in the global temperature. The results show that natural variations alone cannot explain the observed temperature rise of the last decades. The changes from human activities are necessary to fully explain the observed warming. Indeed, the IPCC has estimated that of the processes that can change global temperature, what they call "radiative forcings," the components from human activities are cumulatively ten times larger than the best estimates of the changes from solar activity.[99] A 2007 study found that all the trends in the sun's activity that could influence the temperature of the Earth have been in the opposite direction needed to explain the rise in temperature over the last 20 years.[100]

Scientists predict that if global warming pollution continues to grow unchecked, climate changes will accelerate. The IPCC's estimate of the likely increase in global average surface temperature by 2100 ranges from 2 °F to 11.5 °F above 2000 levels, depending on the scenario for greenhouse gas emissions growth.[101] It should be emphasized, however, that current trends in emissions growth are consistent with or higher than the scenarios on the high end of this range. Business-as-usual emissions growth could result in atmospheric CO_2 concentrations of well above 700 ppm by 2100,[102] yielding a likely temperature increase of 8.8 °F to 11 °F.[103] These levels of warming will result in disastrous impacts for the planet.

Many scientists are increasingly concerned that, because of "positive feedback" mechanisms associated with climate change, we are approaching a "tipping point" beyond which climate change will accelerate and will become increasingly difficult to reverse. For example, the global warming potential of the methane stored in frozen arctic soils likely exceeds by five times the amount of global warming pollution that humans have released into the atmosphere from the burning of fossil fuels since the Industrial Revolution.[104] As these soils warm and release this stored methane, temperatures

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[96] The total CO_2-equivalent concentration of all greenhouse gases is 455 ppm. Intergovernmental Panel on Climate Change, *Climate Change 2007: Mitigation of Climate Change, Summary for Policymakers*, at 27 (2007).

[97] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 112 (2007).

[98] Urs Siegenthaler, et al., Stable Carbon Cycle—Climate Relationship During the Late Pleistocene, 310 Science 1313 (2005).

[99] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 4 (2007).

[100] Lockwood and Froehlich, *Recent Oppositely Directed Trends in Solar Climate Forcings and the Global Mean Surface Air Temperature*, 463 Proceedings of the Royal Society, 24427 (2007).

[101] Intergovernmental Panel on Climate Change, 2007, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 13, 69–70 (2007).

[102] See, e.g., Environmental Protection Agency, *EPA Analysis of Bingaman-Specter Request on Global CO_2* Concentrations, at 7 (Oct. 1, 2007) (online at http://www.epa.gov/climatechange/downloads/s1766analysispart1.pdf).

[103] See Intergovernmental Panel on Climate Change, *Climate Change 2007: Mitigation of Climate Change, Summary for Policymakers*, at 39 (Table TS.2) (2007).

[104] Sergey A. Zimov, et al., *Permafrost and the Global Carbon Budget*, 312 Science 1612 (2006).

will increase, causing more melting and increased methane releases.

GREENHOUSE GAS EMISSIONS SOURCES AND TRENDS

The United States accounts for roughly 20 percent of global CO_2 emissions, and U.S. emissions have grown over the past two decades at a rate of roughly 1 percent per year. In 2007 (the most recent year for which data is available), the United States emitted 7,150 million metric tons CO_2 equivalent in greenhouse gases—a 17 percent increase since 1990. Net emissions, including sources and sinks, similarly increased from 1990 to 2007, from 5,257 to 6,088 million metric tons CO_2 equivalent.[105] Absent policy interventions, U.S. emissions are expected to increase between 20 and 52 percent by 2025 from 2000 levels.[106]

In 2007, U.S. emissions were dominated by emissions from the electric power sector (comprising 34 percent of total U.S. emissions), transportation sector (28 percent), and industrial sector (20 percent). The remaining emissions were due to the agricultural (7 percent), commercial (6 percent), and residential (5 percent) sectors. Emissions from the electric power, transportation, and agricultural sectors have increased since1990, while emissions from the industrial, commercial, and residential sectors have held steady or declined over the same period. If emissions from the generation of electric power are instead attributed to the end-use sectors, these proportions shift somewhat: the industrial (30 percent), commercial (17 percent), and residential (17 percent) sectors play an increasing role, while contributions from the transportation (28 percent) and agriculture (7 percent) sectors remain relatively constant.[107]

In 2007, roughly 80 percent of U.S. emissions were CO_2 from the combustion of fossil fuels. Additional CO_2 emissions (representing 5 percent total U.S. emissions) were generated from other activities, such as the manufacture of iron and steel and cement. Remaining emissions were comprised of methane (8 percent) and nitrous oxide (4 percent)—largely from agricultural activities, landfills, natural gas systems, and coal mines—and HFCs (2 percent) used as a substitute for ozone-depleting substances. PFCs and SF_6 each comprised less than 1 percent of U.S. emissions. Net carbon sequestration (primarily in U.S. forests and agricultural soils) was 1063 million metric tons CO_2 equivalent—offsetting 15 percent of total U.S. emissions.[108]

Global greenhouse gas emissions increased by 24 percent between 1990 and 2004.[109] Emissions growth has accelerated since then, and is now above the IPCC's high emissions (A1F1) sce-

[105] Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks:1990–2007*, at ES–3 to ES–6 (April 2009) (online at http://www.epa.gov/climatechange/emissions/downloads09/ExecutiveSummary.pdf).

[106] World Resources Institute, *Navigating the Numbers: Greenhouse Gas Data and International Policy*, at 18 (2005) (online at http://pdf.wri.org/navigating_numbers.pdf).

[107] Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2007*, at ES–3 to ES–6 (April 2009) (online at http://www.epa.gov/climatechange/emissions/downloads09/ExecutiveSummary.pdf).

[108] Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2007*, at ES–3 to ES–6 (April 2009) (online at http://www.epa.gov/climatechange/emissions/downloads09/ExecutiveSummary.pdf).

[109] Intergovernmental Panel on *Climate Change, Climate Change 2007: Mitigation of Climate Change, Summary for Policymakers* at 27 (2007).

nario.[110] In 2006, China and the United States each emitted more than 20 percent of total global warming pollution.[111] The EU–25 countries accounted for 15 percent of emissions. When the United Nations Framework Convention on Climate Change was drafted in 1992, the 38 countries initially agreeing to limit their greenhouse gas emissions were responsible for 62 percent of all carbon dioxide emissions. Rapid emissions growth occurring in the developing world has reduced these developed nations contribution to global warming pollution to only 47 percent of the global total.[112]

Electricity and heat account for 25 percent of global emissions, followed by industry (21 percent), land use change and forestry (18 percent), buildings (15 percent), agriculture (15 percent), transport (14 percent), and waste (4 percent).[113] The International Energy Agency's (IEA's) Reference Scenario projects global greenhouse gas emissions to increase 45 percent between 2006 and 2030. Emissions from China and India are expected to grow by 86 and104 percent, respectively, while emissions from the United States are expected to grow by 25 percent over the same time period.[114] Emissions from the EU have stayed relatively flat since 1990, and the EU has unilaterally committed to reduce emissions by 20 percent by 2020—and up to 30 percent with cooperation from the international community.

While China has now overtaken the United States as the largest greenhouse gas emitter on an annual basis, the United States continues to have one of the highest per capita emission rates. In 2005, the United States emitted 20 tons of CO_2 per capita annually, compared to 12 tons per capita in Russia, 10 tons in Japan and the United Kingdom, and 8 tons per capita for the EU. The worldwide average per capita CO_2 emissions level is 4.3 tons, and the average person in China and India is responsible for 4 tons and 1 ton of CO_2 emissions per year, respectively.[115]

Moreover, the United States is responsible for nearly a third of the cumulative greenhouse gas emissions in the atmosphere—nearly four times as much as China and more than 14 times as much as India. Developing countries with 80 percent of the world's population still account for only 20 percent of the cumulative emissions since 1751. The poorest countries in the world—where 800 million people live—have contributed less than 1 percent of these cumulative emissions.[116] For most industrialized countries, their historic (i.e., cumulative) share of global emissions is much higher than their current (i.e., annual) share. For the period between 1850 and 2002, the United States contributed 29 percent world's CO_2 emissions, leading all other countries. EU–25 follows closely behind,

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[110] Global Carbon Project, *Carbon budget and trends 2007* (Sept. 26, 2008), (online at http://www.globalcarbonproject.org/carbontrends/index.htm).

[111] International Energy Agency, *Key World Energy Statistics 2008*, at 45, 50, 56 (2008) (online at http://www.iea.org/textbase/nppdf/free/2008/key_stats_2008.pdf).

[112] International Energy Agency, *Key World Energy Statistics 2008*, at 45, 50, 56 (2008) (online at http://www.iea.org/textbase/nppdf/free/2008/key_stats_2008.pdf).

[113] World Resources Institute, *Navigating the Numbers: Greenhouse Gas Data and International Policy*, at 57 (2005) (online at http://pdf.wri.org/navigating_numbers.pdf).

[114] International Energy Agency, *World Energy Outlook 2008* (2008); and International Energy Agency, *Key World Energy Statistics 2008* (2008).

[115] Energy Information Administration, *International Energy Annual 2005, Table H.1cco2 World Per Capita Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels,1980–2005* (2007) (online at http://www.eia.doe.gov/pub/international/iealf/tableh1cco2.xls).

[116] Global Carbon Project, *Carbon budget and trends 2007* (Sept. 26, 2008), (online at http://www.globalcarbonproject.org/carbontrends/index.htm).

with a contribution of 27 percent world's CO_2 emissions, but no other country contributes more than 10 percent. For example, China's cumulative contribution is 8 percent, and India's is only 2 percent.[117]

The IPCC has concluded that, to have even a 50–50 chance of avoiding the dangerous climate change associated with a 3.6° F increase in global average surface temperature, global emissions must be reduced by 50–85 percent by 2050. This requires the United States and other developed countries to reduce emissions by at least 80 percent by 2050.[118] Given the current trajectory of rapidly rising greenhouse gas emissions, both in the United States and globally, a substantial change of course is required in the very near term to avoid the catastrophic impacts outlined below.

THE IMPACTS OF CLIMATE CHANGE

The current and anticipated impacts of climate change have been increasingly well documented in the scientific literature.[119] These impacts include effects on water scarcity and quality, the Arctic and Antarctic, warming and acidification of the world's oceans, sea level rise and coastal impacts, extreme weather events, public health, forests and wildfires, wildlife and endangered species, and national security.

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[117] World Resources Institute, *Navigating the Numbers: Greenhouse Gas Data and International Policy*, at 32 (2005) (online at http://pdf.wri.org/navigating__numbers.pdf).

[118] Intergovernmental Panel on Climate Change, *Climate Change 2007: Mitigation of Climate Change, Summary for Policymakers*, at 38–39 (Table TS.2) (2007); Union of Concerned Scientists, *How to Avoid Dangerous Climate Change: A Target for U.S. Emission Reductions* (Sept. 2007) (online at http://www.ucsusa.org/global__warming/solutions/big__picture__solutions/a-target-for-us-emissions.html).

[119] In addition to the other sources cited in this report, the Committee considered the following sources that provide information regarding effects of global warming: Environmental Protection Agency, *Technical support Document for Endangerment and Cause or Contribute findings for Greenhouse Gases* (Apr.17, 2009); Intergovernmental Panel on Climate Change, *IPCC Special Report: The Regional Impacts of Climate Change: An Assessment of Vulnerability* (1997); National Assessment Synthesis Team, *Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change* (2001); Committee on Environment and Natural Resources, National Science and Technology Council, *Scientific assessment of the effects of global change in the United States* (2008); U.S. Climate Change Science Program, *Abrupt Climate Change, Synthesis and Assessment Product 3.4* (2008); U.S. Climate Change Science Program, *Thresholds of Climate Change in Ecosystems, Synthesis and Assessment Product 4.2* (2009); U.S. Climate Change Science Program, *Coastal Sensitivity to Sea Level Rise: a Focus on the Mid-Atlantic Region, Synthesis and Assessment Product 4.1* (2009); U.S. Climate Change Science Program, *Effects of Climate Change on Energy Production and Use in the United States, Synthesis and Assessment Product 4.5.* (2008); National Academy of Sciences, National Academy of Engineering, Institute of Medicine National Research Council, *Understanding & Responding to Climate Change* (2008); Environmental Protection Agency, *Preliminary Review of Adaptation Options for Climate-sensitive Ecosystems and Resources, Synthesis and Assessment Product 4.4* (2008); Environmental Protection Agency, *Climate Ready Estuaries Program, Synthesis of Adaptation Options for Coastal Areas* (2009); Environmental Protection Agency, *Analyses of the Effects of Global Change on Human Health and Welfare and Human System, Synthesis and Assessment Product 4.6* (2008); National Research Council, *Potential Impacts of Climate Change on U.S. Transportation, Transportation Research Board Special Report* (2008); United Nations Foundation, *Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable, Scientific Expert Group Report* (2007); Congressional Budget Office, *Potential Impacts of Climate Change in the United States* (2009); U.S. Department of State, *Fourth U.S. Climate Action Report* (2006); U.S. Climate Change Science Program, *The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States, Synthesis and Assessment Product 4.3* (2008); National Academy of Sciences, *Board on Life Sciences, Division on Earth and Life Studies, National Research Council, Ecological Impacts of Climate Change* (2008); National Academy of Sciences, National Research Council, *Abrupt Climate Change: Inevitable Surprises* (2002); Arctic Climate Impact Assessment, *Arctic Climate Impact Assessment* (2005); Government of Canada, *From Impacts to Adaptation: Canada in a Changing Climate 2007* (2008). Note that this list includes scientific sources relied upon in whole or in part.

INCREASING WATER SCARCITY AND DECLINING WATER QUALITY

One of the most dramatic impacts of global warming in the 21st century will be the exacerbation of already severe water scarcity—both in the United States and abroad. Freshwater scarcity and threats to water quality are increasing dramatically both in the United States and across the world. More than a billion people currently lack access to safe drinking water.[120] By 2025, 1.8 billion people are expected to be living in regions experiencing water scarcity and "two-thirds of the world's population could be living under water stressed conditions."[121] Climate change will greatly exacerbate current and future water stress. For example, the IPCC projects that by 2020, between 75 and 250 million people in Africa alone will experience an increase of water stress due to climate change.[122] For Asia, the number is between 120 million and 1.2 billion people, and for Latin American it is 12 to 81 million.[123]

Global warming is leading to rapid melting of land ice, glaciers, ice caps, and snow fields which over time will exacerbate water scarcity in many regions of the globe. One-sixth of the world population currently relies on meltwater from glaciers and snow cover for drinking water and irrigation for agriculture.[124] The IPCC's 2008 Climate Change and Water report projects widespread reductions in snow cover throughout the 21st Century, and a 60 percent volume loss in glaciers in various regions.[125] The melting of these ice reservoirs, which store 75 percent of the world's freshwater, will exacerbate water scarcity conditions.[126] While melting will temporarily increase freshwater supply, more winter precipitation falling as rain rather than snow, and an earlier snowmelt season will deplete frozen freshwater reserves.

Increased water stress due to climate change will disproportionately affect the dry tropics and dry regions at lower mid-latitudes—notably Southeast Asia, southern Africa, Brazil, and the American Southwest.[127] According to the 2008 IPCC Climate Change and Water Report, semi-arid and arid areas in Southeast Asia, Southern Africa, Brazil, and the western United States are "projected to suffer a decrease of water resources due to climate change."[128] In Asia, decreasing precipitation and rising temperatures result in increasing frequency and intensity of droughts.[129] In northwestern China and Mongolia, snow and glacier melt will cause floods in the spring in the near term but result in freshwater shortages by the end of the century.[130] Global warming of 5.4 °F to 7.2 °F may result in more persistent El Niño conditions that would shift the

[120] German Advisory Council on Global Change, *Climate Change as a Security Risk Summary for Policy-makers*, at 2 (2007).

[121] United Nations Commission on Sustainable Development, *The Food Crisis and Sustainable Development* (May 2008) (online at http://www.un.org/esa/sustdev/csd/csd16/documents/bgrounder_foodcrisis.pdf).

[122] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policy Makers,* at 13 (2007).

[123] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 36 (2008).

[124] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation, and Vulnerability, Summary for Policymakers,* at 11 (2007).

[125] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 28 (2008).

[126] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 19–26 (2008).

[127] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 3 (2008).

[128] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 88 (2008).

[129] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 86 (2008).

[130] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 87 (2008).

Amazon rainforest from "tropical forest to dry savannah"[131]—imperiling an ecosystem that sustains thousands of people and is one of the greatest concentrations of biodiversity on Earth.[132]

The United States is already experiencing water stress, which will worsen severely in the coming decades due to climate change. In the American West, the Sierra Nevada snowpack is at its lowest level in 20 years and threatens most of the water supply to Northern California.[133] Experts warn that "even the most optimistic climate models for the second half of this century suggest that 30 to 70 percent of this snowpack will disappear."[134] The Southwest is already experiencing a severely reduced flow in the Colorado River—upon which 30 million people depend for water—as a consequence to decreasing snowmelt from the Rocky Mountains.[135] The Midwest is expected to experience "drought-like conditions resulting from elevated temperatures, which increases levels of evaporation, contributing to decreases in soil moisture and reductions in lake and river beds" as a result of climate change.[136] In addition to a range of other costs, agriculture in the Great Plains and the Southwest is likely to suffer massive economic losses due to increasing water scarcity.[137] A recent study led by NOAA found that if CO_2 is allowed to peak above 450 parts per million, the impacts would include "irreversible dry season rainfall reductions . . . comparable to those of the 'dust bowl' era" in the southwestern U.S.[138]

Climate change will also negatively impact the quality of freshwater resources. For example, reduced flows will reduce rivers' ability to dilute effluent, leading to increased pathogen or chemical loading.[139] In addition, increased heavy precipitation events due to climate change—discussed below—"may increase the total microbial load in watercourses and drinking-water reservoirs."[140] And warmer water temperature combined with higher phosphorus concentrations will increase the occurrence of freshwater algal blooms, with adverse impacts on freshwater ecosystems and fisheries. Fish habitat may also be compromised because altered water chemistry will promote the intrusion of invasive species.[141] These impacts will exacerbate the precarious state of freshwater fish species in North America, nearly 40 percent of which are already at risk.[142]

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[131] Timothy M. Lenton et al., *Tipping Elements in the Earth's climate system,* 105 Proceedings of the National Academy of Sciences 1790 (2008).

[132] WWF Climate Change Programme, *Climate Change Impacts in the Amazon: Review of Scientific Literature* (online at

[133] *The Future is Drying Up,* New York Times (Oct. 21, 2008) (online at http://www.nytimes.com/2007/10/21/magazine/21water-t.html?_r=1&ref=todayspaper&oref=slogin).

[134] *The Future is Drying Up,* New York Times (Oct. 21, 2008) (online at http://www.nytimes.com/2007/10/21/magazine/21water-t.html?_r=1&ref=todayspaper&oref=slogin).

[135] *The Future is Drying Up,* New York Times (Oct. 21, 2008) (online at http://www.nytimes.com/2007/10/21/magazine/21water-t.html?_r=1&ref=todayspaper&oref=slogin).

[136] *The Future is Drying Up,* New York Times (Oct. 21, 2008) (online at http://www.nytimes.com/2007/10/21/magazine/21water-t.html?_r=1&ref=todayspaper&oref=slogin).

[137] University of Maryland Center for Integrative Environmental Research, *The U.S. Economic Impacts of Climate Change and the Costs of Inaction* at 24, 27 (October 2007) (online at http://dl.klima2008.net/ccsl/us_economic.pdf).

[138] Susan Solomon et al., *Irreversible climate change due to carbon dioxide emissions,* Proceedings of the National Academy of Sciences 1704 (2009).

[139] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 67 (2008).

[140] Intergovernmental Panel on Climate Change, *Climate Change and Water,* at 68 (2008).

[141] Environmental Protection Agency, *National Water Program Strategy: Response to Climate Change,* at ii (Mar. 2008) (online at http://www.epa.gov/water/climatechange/docs/TO5_DRAFT_CCR_Revised_10–16.pdf).

[142] Fisheries: *Freshwater species in steep decline—USGS,* Greenwire (Sept. 10, 2008).

IMPACTS ON THE ARCTIC AND ANTARCTIC

The Arctic is one of the hotspots of global warming. Over the past 50 years average temperatures in the Arctic have increased as much as 7 °F, five times the global average.[143] In the next 100 years, some areas in the Arctic may see an increase in average temperatures as high as 13 °F.[144]

As temperatures rise in the Arctic, sea ice and glaciers are melting at an unprecedented and alarming rate. In 2007, a record 386,000 square miles of Arctic sea ice melted away, an area larger than Texas and Arizona combined and as big a decline in one year as has occurred over the last decade.[145] In 2008, the sea ice extent was only slightly greater than in 2007, but the sea ice volume is likely the lowest on record due to the decline in multiyear old ice and the thinness of the remaining ice.[146] Recent observations suggest that Arctic sea ice could completely disappear during the summer as early as 2020.[147]

The Greenland ice sheet is melting at an alarming rate. Between 1979 and 2002, the extent of melting in Greenland has increased on average by 16 percent—an area roughly the size of Sweden.[148] In the record-breaking year of 2005, parts of Greenland melted that have never melted during the 27-year-long satellite record.[149]

A complete melting of Greenland would result in a rise in global sea level of more than 20 feet,[150] with catastrophic consequences for coastal regions around the world. Furthermore, melting Arctic glaciers would contribute large amounts of fresh water into the ocean, potentially changing oceanic currents, damaging eco-systems and altering current weather conditions.

At the opposite end of world, massive amounts of water are stored in the two ice sheets of Antarctica. The larger East Antarctic ice sheet covers the majority of the continent, while the West Antarctic ice sheet has significant ice shelves partially floating in the ocean. In the spring of 2002, scientists were shocked to discover that an ice shelf the size of Rhode Island had disintegrated from the West Antarctica ice sheet in just over a month,[151] rather than the millennium previously assumed. Until recently, it was believed that only coastal areas of the West Antarctic were vulnerable to melting. Satellite analysis has now revealed that large inland regions are also showing signs of the impacts of warming. NASA and university researchers have found clear evidence that an area the

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[143] Arctic Climate Impact Assessment, *Impacts of a Warming Arctic: Highlights,* at 4 (2004) (online at http://www.amap.no/acia/Highlights.pdf).

[144] Arctic Climate Impact Assessment, *Impacts of a Warming Arctic: Highlights,* at 4 (2004) (online at http://www.amap.no/acia/Highlights.pdf).

[145] European Space Agency, *Satellites Witness Lowest Arctic Ice Coverage in History* (Sept. 14, 2007) (online at http://www.esa.int/esaCP/SEMYTC13J6F_index_0.html).

[146] National Snow and Ice Data Center, *Arctic Sea Ice Down to Second-Lowest Extent; Likely Record-Low Volume* (Oct. 2, 2008) (online at http://nsidc.org/news/press/20081002_seaice_pressrelease.html).

[147] Julienne Stroeve et al. *Arctic Sea Ice Decline: Faster Than Forecast,* 34 Geophysical Research Letters L09501 (2007).

[148] Arctic Climate Impact Assessment, *Impacts of a Warming Arctic: Highlights,* at 6 (2004) (online at http://www.amap.no/acia/Highlights.pdf).

[149] Sebastian H. Mernild et al., *Surface Melt Area and Water Balance Modeling on the Greenland Ice Sheet* 1995–2005, Journal of Hydrometeorology: In Press (2008).

[150] United States Geological Survey, *Sea Level and Climate* (2000) (online at http://pubs.usgs.gov/fs/fs2–00/).

[151] N. F. Glasser & T.A. Scambos, *A structural glaciological analysis of the 2002 Larsen B ice shelf collapse,* 54 Journal of Glaciology 316 (2008).

size of California melted in January 2005 in response to warm temperatures.[152]

WARMING AND ACIDIFICATION OF THE WORLD'S OCEANS

The world's oceans will suffer devastating impacts as a result of global climate change.

The oceans are already warming due to climate change. The oceans cover 70 percent of the Earth's surface and are critical components of the climate system for redistributing heat around the world and absorbing CO_2 from the atmosphere. According to the IPCC, global ocean temperature has risen by 0.18° F from 1961 to 2003.[153] Since the ocean has a heat capacity 1,000 times greater than that of the atmosphere, it has taken up 20 times more heat than the atmosphere during this same period.[154] As a result of the ocean's relatively large heat capacity, it has a great effect on the Earth's heat balance and how energy from solar radiation is distributed throughout the global environment.

Increasing atmospheric CO_2 concentrations are causing acidification of the oceans. Elevated atmospheric CO_2 concentrations lead to higher absorption of CO_2 into the upper ocean, which makes the surface waters more acidic and reduces the concentration of carbonate ions. According to the National Oceanic and Atmospheric Administration (NOAA), ocean chemistry currently is changing at least 100 times more rapidly than it has changed during the 650,000 years preceding our industrial era.[155] If current emission trends continue, the ocean will experience acidification to an extent and at rates that have not occurred for tens of millions of years. Ocean acidification has serious implications for the calcification rates of organisms living at all levels within the global ocean, from corals to zooplankton that serve as the foundation of many ocean food chains. According to NOAA, when dissolved carbon dioxide was increased to two times pre-industrial levels, a decrease in the calcification rate by 5 to 50 percent was observed.[156]

Warming and acidification of ocean waters due to climate change are contributing to the collapse of coral reefs around the globe. Coral reefs are habitat for about a quarter of marine species, are the most diverse among marine ecosystems, and are already in a state of decline. Recent studies indicate that more than a third of all coral species are already endangered.[157] When key temperature thresholds are exceeded, mass bleaching and complete coral mortality often result. By mid-century, these temperature thresholds are expected to be exceeded on an annual or bi-annual basis for the majority of reefs worldwide. After bleaching, algae quickly colonize dead corals and may make future coral growth and restoration

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[152] S. V. Nghiem et al., *Snow Accumulation and Snowmelt Monitoring in Greenland and Antarctica, in Dynamic Planet* (2007).

[153] Intergovernmental Panel on Climate Change, *Climate Change 2007:* The Physical Science Basis at 387 (2007).

[154] Intergovernmental Panel on Climate Change, *Climate Change 2007:* The Physical Science Basis, at 389 (2007).

[155] Pacific Marine Environmental Laboratory, National Oceanic and Atmospheric Administration, *Carbon Dioxide and Our Ocean Legacy* (April 2006) (online at http://www.pmel.noaa.gov/pubs/PDF/feel2899/feel2899.pdf).

[156] National Oceanic and Atmospheric Administration, *Impacts of Anthropogenic CO_2* on Ocean Chemistry and Biology (Oct. 20, 2008) (online at http://www.oar.noaa.gov/spotlite/spot_gcc.html).

[157] *One-Third of Reef-Building Corals Face Elevated Extinction Risk from Climate Change and Local Impacts,* Science Express (July 10, 2008).

more difficult. Other factors that influence the health of reefs are impacted by climate change, including sea level rise, storm severity and dust and mineral aerosols.[158] These, together with non-climate factors such as over-fishing, invasion of non-native species, pollution, and increased nutrient and sediment loads, add multiple stresses, increasing coral reefs' vulnerability to climate change. Corals could become rare on tropical and subtropical reefs by 2050 due to the combined effects of acidification and increasing frequency of extreme temperature events that cause bleaching.

NOAA estimates the commercial value of United States fisheries from coral reefs is more than $100 million,[159] and the total economic value of coral is estimated to be $30 billion.[160] Coastal states, like Florida, would be especially harmed where reef-based tourism in the Florida Keys generates $1.2 billion in annual revenue.[161] Healthy coral reefs provide other benefits, as well, including shoreline protection, beach sand supply, potential pharmaceuticals, biodiversity, and fish habitat.

Climate change threatens global fisheries. Warmer water and acidification not only harm coral reefs that function as fish hatcheries, but could also change the circulation of the world's ocean currents. Most fish species have a fairly narrow range of optimum temperatures due to temperature effects on their basic metabolism and the availability of food sources that have their own optimum temperature ranges.[162] A given species' geographic range may expand, shrink, or be relocated with changes in ocean conditions caused by climate change.[163] The United Nations Environment Programme found that "climate change may slow down ocean thermohaline circulation crucial to coastal water quality and nutrient cycling in more than 75 percent of the world's fishing grounds."[164] Less hospitable waters would have a significant effect on the global fishing industry. In the United States alone, commercial and recreational fisheries contribute $60 billion to the economy each year and employ more than 500,000 people.[165]

SEA LEVEL RISE AND COASTAL IMPACTS

Sea levels are already rising, and are predicted to rise by at least 1–2 feet by 2100—with the potential for a nearly 40-foot rise in sea level if the Greenland and West Antarctica ice sheets were to melt completely. The IPCC predicts that sea levels will rise by 8 to 24 inches above current levels by 2100, primarily due to thermal ex-

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[158] R.A. Cropp and A.J. Gabric, *Evidence for Global Coupling of Phytoplankton and Atmospheric Aerosols,* 4 Oceans 2003. Proceedings 2341 (2003).

[159] National Oceanic and Atmospheric Administration, Importance of Coral Reefs (March 25, 2008) (online at http://oceanservice.noaa.gov/education/kits/corals/coral07_importance.html).

[160] *Scientists: Global Warming could kill coral reefs by 2050,* USA Today (Dec. 13, 2007) (online at http://www.usatoday.com/weather/climate/globalwarming/2007–12–13–coral-reefs_N.htm).

[161] World Resources Institute, *The Value of Ecosystems* (Dec. 5, 2006) (online at http://www.wri.org/stories/2006/12/value-coastal-ecosystems).

[162] Pacific Fisheries and Environmental Laboratory, National Oceanic and Atmospheric Administration, *Climate Variability and Marine Fisheries: How Does Climate Affect Fish Populations?* (online at http://www.pfeg.noaa.gov/research/climatemarine/cmffish/cmffishery.html).

[163] James R. McGoodwin, *Effects of Climate Variability on Three Fisheries Economies in High-Altitude Regions: Implications for Fisheries Policies,* 31 Marine Policy 40–55 (2007).

[164] United Nations Environmental Programme, *Warmer World May Mean Less Fish* (Feb. 22, 2008) (online at http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=528&ArticleID=5751).

[165] Senate Committee on Commerce, Science, and Transportation, Testimony of James L. Connaughton, *Hearing on Magnuson-Stevens Reauthorization* (109th Cong.) (Nov. 16, 2005).

pansion from rising ocean temperatures[166]—with current emissions trends more consistent with the higher end of this range. However, how much and how quickly the polar ice sheets will melt in response to global warming is a critical question. Many scientists are increasingly concerned that the Greenland and West Antarctic ice sheets are melting at a greater rate than previously predicted. Because scientists do not fully understand the dynamics of ice sheet melting, the IPCC found that larger values of sea level rise could not be excluded.[167] A complete melting of the Greenland ice sheet alone would cause a 20-foot rise in sea level, and complete melting of the West Antarctic ice sheet would cause a 16-foot sea level rise.[168]

Sea level rise will have severe impacts on the world's coastal populations, including in the United States. Rising sea levels are already causing inundation of low-lying lands, erosion of wetlands and beaches, exacerbation of storm surges and flooding, and increases in the salinity of coastal estuaries and aquifers. The most dramatic near-term effects of sea level rise are being felt by inhabitants of small island states, the very existence of which is now endangered. Further, about one billion people live in areas within 75 feet elevation of today's sea level, including many U.S. cities on the East Coast and Gulf of Mexico, almost all of Bangladesh, and areas occupied by more than 250 million people in China.[169] In total, more than 70 percent of the world's population lives on coastal plains, and 11 of the world's 15 largest cities are on the coast.

In addition, rising sea level due to climate change will threaten drinking water supplies in coastal areas—causing intrusion of saltwater into both surface water and ground water.[170] If sea level rise pushes salty water further upstream, existing water intakes might draw on salty water during dry periods. The freshwater Everglades currently recharge Florida's Biscayne aquifer, the primary water supply to the most populous counties in South Florida, including the cities of Miami and Fort Lauderdale. As rising water levels submerge low-lying portions of the Everglades, portions of the aquifer would become saline.[171] Aquifers in New Jersey east of Philadelphia are recharged by the Delaware River which also may become saline in parts in the future, leading to a degradation of drinking water quality.[172]

EXTREME WEATHER EVENTS

Global warming has already changed the intensity, duration, frequency, and geographic range of a variety of weather patterns and will continue to do so—with potentially severe impacts on the

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[166] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 70 (2007).

[167] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 14 (2007).

[168] United States Geological Survey, *Sea Level and Climate* (2000) (online at http://pubs.usgs.gov/fs/fs2–00/); United States Geological Survey, *Coastal Change and Glaciological Maps of Antarctica* (2007) (online at http://pubs.usgs.gov/fs/2005/3055/index.html).

[169] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers,* at 12 (2007).

[170] Environmental Protection Agency, *Coastal Zones and Sea Level Rise* (Feb. 20, 2009) (online at http://www.epa.gov/climatechange/effects/coastal/index.html).

[171] Environmental Protection Agency, *Coastal Zones and Sea Level Rise* (Feb. 20, 2009) (online at http://www.epa.gov/climatechange/effects/coastal/index.html).

[172] Environmental Protection Agency, *Coastal Zones and Sea Level Rise* (Feb. 20, 2009) (online at http://www.epa.gov/climatechange/effects/coastal/index.html).

United States and the world.[173] There is a broad scientific consensus that the United States is vulnerable to weather hazards that will be exacerbated by climate change. The cost of damages from weather disasters has increased markedly from the 1980s, rising to more than 100 billion dollars in 2007. In addition to a rise in total cost, the frequency of weather disasters costing more than one billion dollars has increased.[174]

Global warming will lead to more extreme precipitation events and flooding. The IPCC has found that "[t]he frequency of heavy precipitation events has increased over most land areas, consistent with warming and observed increases of atmospheric water vapor."[175] The U.S. Climate Change Science Program has concluded that heavy precipitation events averaged over North America have increased over the past 50 years.[176]

Flooding and extreme precipitation events cost lives and can cause massive damages to infrastructure, property, and agricultural lands, as was highlighted by the flooding in the Midwestern United States in the summer of 2008. Those floods washed away nearly 2 percent of the nation's corn crop. The American Farm Bureau Federation estimated there were crop losses in excess of $8 billion across the Midwest, with half of the total occurring in Iowa.[177] An additional $1.5 billion in property damage occurred in Iowa[178] and $1 billion in Indiana.[179]

Increased sea surface temperatures are a critical determining factor in the strength of hurricanes, and some scientists predict that global warming will result in an increase in hurricane and tropical cyclone frequency and intensity. The IPCC has found observational evidence for the increase in intense hurricanes in the North Atlantic since the 1970s, correlated with increasing sea surface temperatures.[180] Some researchers have argued that there is evidence for increased hurricane intensity around the world and emerging evidence for an increase in frequency of hurricanes in the Atlantic.[181] Stronger hurricanes lead to more destructive winds and higher storm surges, increasing the risk to coastal communities in their paths. As sea level rises and storm surges increase, the vulnerability of cities to flooding, and the related impacts, increases significantly.

Severe thunderstorms, hail, tornados, and winter storms may also increase. The current observational record for these smaller

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[173] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis,* at 8 (2007); see generally U.S. Climate Change Science Program, *Synthesis Assessment Product 3.3, Weather and Climate Extremes in a Changing Climate: Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands,* at 8 (June 2008).

[174] See National Climatic Data Center, *Billion Dollar U.S. Weather Disasters,* (Jan. 29, 2009) (online at http://www.ncdc.noaa.gov/oa/reports/billionz.html).

[175] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 8 (2007).

[176] U.S. Climate Change Science Program, *Synthesis Assessment Product 3.3, Weather and Climate Extremes in a Changing Climate: Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands*, at 4 (June 2008).

[177] National Climatic Data Center, *Climate of 2008: Midwestern U.S. Flood Overview* (July 9, 2008) (online at http://www.ncdc.noaa.gov/oa/climate/research/2008/flood08.html#impacts).

[178] National Climatic Data Center, *Climate of 2008: Midwestern U.S. Flood Overview* (July 9, 2008) (online at http://www.ncdc.noaa.gov/oa/climate/research/2008/flood08.html#impacts).

[179] *Purdue researchers to assess damage from Midwestern floods*, Lafayette Online (Sept. 29, 2008) (online at http://www.lafayette-online.com/purdue-news/2008/09/purdue-researchers-assess-flood-impact/).

[180] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 9 (2007).

[181] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adapatation, and Vulnerability*, at 110 (2007).

scale storms is insufficient to determine whether there are trends correlated to warming temperatures.[182] However, these phenomena are often associated with heavy precipitation events and hurricanes; as the latter storms become more frequent and possibly increase in intensity, then the probability of thunderstorms, hail, and tornadoes should also increase. Warming temperatures may also expand the range over which tornados occur. Over the last few years, tornados have occurred earlier in the year and further north than what is typically thought of as "tornado alley."[183] Finally, strong cold season storms are also likely to become more frequent, with stronger winds and more extreme wave heights.[184]

PUBLIC HEALTH

There is a broad consensus among experts within the worldwide public health community that climate change poses a serious risk to public health. The IPCC's Fourth Assessment report concluded that climate change's likely impacts on public health include:

- More frequent and more intense heat waves, leading to marked short-term increases in mortality.
- Increased numbers of people suffering from death, disease, and injury from floods, storms, fires and droughts.
- Increased cardio-respiratory morbidity and mortality associated with ground-level ozone pollution.
- Changes in the range of some infectious disease vectors.
- Increased malnutrition and consequent disorders, including those relating to child growth and development.[185]

This assessment included a specific analysis of regional impacts to health, including in the United States.[186] In addition, EPA,[187] the Centers for Disease Control and Prevention (CDC),[188] and NOAA have all concluded climate change poses a serious public health risk. The World Health Organization (WHO) released a quantitative assessment concluding that the effects of climate change may have caused more than 150,000 deaths in 2000 and that these impacts are likely to increase in the future.[189] According to the IPCC, climate change contributes to the global burden of disease, premature death and other adverse health impacts.[190]

There is consensus that heat waves "have become more frequent over most land areas" and there is confidence that climate change will result in the "very likely increase in frequency of hot ex-

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[182] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, at 9 (2007); U.S. Climate Change Science Program, *Synthesis Assessment Product 3.3, Weather and Climate Extremes in a Changing Climate: Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands*, at 7 (June 2008)..

[183] Twisters '*on a record pace*', L.A. Times (May 13, 2008) (online at http://articles.latimes.com/2008/may/13/nation/na-tornado13).

[184] U.S. Climate Change Science Program, *Synthesis Assessment Product 3.3, Weather and Climate Extremes in a Changing Climate: Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands*, at 7 (June 2008)

[185] Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report, Summary for Policymakers*, at 48 (2007).

[186] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, at 617–652 (2007).

[187] Environmental Protection Agency, *Climate Change—Health and Environmental Effects* (Feb. 18, 2009) (online at http://www.epa.gov/climatechange/effects/health.html).

[188] Centers for Disease Control and Prevention, *CDC Policy on Climate Change and Public Health* (online at http://www.cdc.gov/climatechange/pubs/Climate_Change_Policy.pdf).

[189] World Health Organization, *Climate and Health* (Aug. 2007) (online at http://www.who.int/globalchange/en/).

[190] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, at 391–431 (2007).

tremes."[191] There is evidence that present day heat waves over Europe and North America "coincide with a specific atmospheric circulation pattern that is intensified by ongoing increases in greenhouse gasses."[192] The intensity, duration and frequency of heat waves will increase in western and southern regions of the United States and in the Mediterranean region.[193] Other areas not currently as susceptible, such as northwest North America, France, Germany, and the Balkans will also experience "increased heat wave severity in the 21st century."[194] With continued warming by 2100, Washington, D.C. will experience the temperatures that Houston does today, Denver will be as warm as Memphis is today, and Anchorage will be as warm as New York City is today.[195] The populations most at risk of dying in a heat wave are the elderly and people in underserved communities, and as growth in the U.S. population over the age of 65 coincides with warmer temperatures, more deaths can be anticipated.

Global warming will exacerbate ground-level ozone pollution, leading to substantial increases in deaths and respiratory illness. The ozone forming reaction occurs at a higher rate with more intense sunlight and higher temperatures. Thus, as temperatures rise from global warming, ground level ozone is expected to increase. Ozone is a known public health threat that can damage lung tissue causing respiratory illness, and exacerbate pre-existing respiratory conditions. The IPCC predicts increased levels of ozone across the eastern United States, "with the cities most polluted today experiencing the greatest increase in ozone pollution."[196] The increase in temperature in urban areas specifically and increases in ozone can increase rates of cardiovascular and pulmonary illnesses as well as temperature-related morbidity and mortality for children and the elderly.[197] Similar impacts will be felt in urban areas around the globe. By mid-century, ozone related deaths from climate change are predicted to increase by approximately 4.5 percent from the 1990s levels.[198] Even modest exposure to ozone may encourage the development of asthma in children.[199] Recently, an analysis linking CO_2 emissions to mortality revealed that for each increase of 1.8 °F caused by CO_2, the resulting air pollution would lead annually to about a thousand additional deaths and many

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[191] Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report, Summary for Policymakers*, at 2, 8 (2007).

[192] Gerald A. Meehl & Claudia Tebaldi, *More Intense, More Frequent, and Longer Lasting Heat Waves in the 21st Century*, 305 Science 994 (2004).

[193] Gerald A. Meehl & Claudia Tebaldi, *More Intense, More Frequent, and Longer Lasting Heat Waves in the 21st Century*, 305 Science 994 (2004).

[194] Gerald A. Meehl & Claudia Tebaldi, *More Intense, More Frequent, and Longer Lasting Heat Waves in the 21st Century*, 305 Science 994 (2004).

[195] Natural Resources Defense Council, *The Cost of Climate Change: What We'll Pay if Global Warming Continues Unchecked* at vi (May 2008) (online at http://www.nrdc.org/globalwarming/cost/cost.pdf).

[196] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability* at 632 (2007).

[197] U.S. Climate Change Science Program, *Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems* at ES–6 (Sept. 2008) (online at http://downloads.climatescience.gov/sap/sap4–6/sap4–6–final-report-all.pdf).

[198] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability* at 632 (2007).

[199] R. K. McConnell et al., *Asthma in exercising children exposed to ozone: A cohort study*, 359 The Lancet 386 (2002); J.F. Gent et al., *Association of low-level ozone and fine particles with respiratory symptoms in children with asthma*, 29 J. Am. Med. Assoc. 1859 (2003).

more cases of respiratory illness and asthma in the United States.[200]

Climate change is predicted to lead to changes in geographic distribution of infectious diseases, with potentially serious impacts on public health in the United States and globally. According to EPA, "Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects."[201] For example, the IPCC has concluded that the global population at risk from vector-borne malaria will increase by between 220 million and 400 million in the next century.[202] Similarly, the IPCC predicts that climate change is likely to increase risk and geographic spread of the West Nile virus—another mosquito-borne disease.[203] West Nile virus was first identified in the United States during the summer of 1999, and has since killed 1,112 people.[204] Shifting patterns of temperature may also redistribute ticks that transmit pathogens causing Lyme disease.[205]

FORESTS AND WILDFIRES

The clearing and degradation of tropical forests is a major driver of global climate change. Forests cover about 30 percent of the Earth's land surface and hold almost half of the world's terrestrial carbon.[206] They can act both as a source of carbon emissions to the atmosphere when cut, burned, or otherwise degraded and as a sink when they grow, removing carbon dioxide from the air through photosynthesis.

Since the 1950s, greenhouse gas emissions from land use change, including deforestation and degradation, have been significant, on the order of 20 to 50 percent of fossil fuel emissions.[207] Deforestation and degradation currently account for 20 to 25 percent of global anthropogenic greenhouse gas emissions, roughly equivalent to the total fossil fuel emissions from the United States.[208] These emissions come predominantly from deforestation of tropical rainforests.

Tropical forests play an especially crucial role. When forests are destroyed by fire, much of the carbon they store returns to the atmosphere, enhancing global warming. When a forest is cleared for crop or grazing land, the soils can become a large source of global

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[200] Mark Jacobson, *On the Causal Link Between Carbon Dioxide and Air Pollution Mortality*, 35 Geophysical Research Letters L03809 (2008).

[201] Environmental Protection Agency, Climate Change Health and Environment Effects: Health, (online at http://www.epa.gov/climatechange/effects/health.html#climate).

[202] Intergovernmental Panel on *Climate Change, Climate Change 2007: Impacts, Adaptation and Vulnerability* at 409 (2007).

[203] Intergovernmental Panel on *Climate Change, Climate Change 2007: Impacts, Adaptation and Vulnerability* at 619 (2007).

[204] Centers for Disease Control and Prevention, West Nile Virus Human Case Counts for 1999–2008, (online at http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm).

[205] U.S. Climate Change Science Program, *Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems*, at 53 (Sept. 2008) (online at http://downloads.climatescience.gov/sap/sap4–6/sap4–6–final-report-all.pdf).

[206] Richard A. Houghton, "Tropical Deforestation as a source of greenhouse gas emissions," in *Tropical Deforestation and Climate Change* at 13 (2005) (online at http://www.edf.org/documents/4930_TropicalDeforestation_and_ClimateChange.pdf).

[207] Richard A. Houghton, *Carbon Flux to the Atmosphere from Land-Use Changes: 1850–2005 in TRENDS: A Compendium of Data on Global Change* (2008) (online at http://cdiac.ornl.gov/trends/landuse/houghton/houghton.html).

[208] Richard A. Houghton, "Tropical Deforestation as a source of greenhouse gas emissions," in *Tropical Deforestation and Climate Change* at 13 (2005) (online at http://www.edf.org/documents/4930_TropicalDeforestation_and_ClimateChange.pdf).

warming emissions, depending on how farmers and ranchers manage the land. In places such as Indonesia, the soils of swampy lowland forests are rich in partially decayed organic matter, known as peat. During extended droughts, such as during El Niño events, the forests and the peat become flammable, especially if they have been degraded by logging or accidental fire. When they burn, they release huge volumes of CO_2 and other greenhouse gases.

There is growing scientific consensus that climate change is already increasing the frequency and intensity of wildfires in the United States, and this trend is likely to worsen in the coming decades. Scientists have concluded that from 1986 to 2006, longer, warmer summers have resulted in a four-fold increase in major wildfires and a six-fold increase in the area of forest burned, compared to the period from 1970–1986.[209] Similar results were published regarding wildfire activity in Canada from 1920–1999.[210] In addition to more intense and more frequent fires, the length of the fire season and the burn duration of large fires have also increased. Models of future climate have consistently concluded that the areas burned will increase in the coming years and decades. For example, wildfire burn areas in Canada are expected to increase by 74 to 118 percent in the next century,[211] and similar increases are predicted for the western United States. With more wildfires come more greenhouse gas emissions. Although estimates vary widely, wildfires may represent up to 10 percent of total U.S. greenhouse gas emissions.[212]

Global warming is also exacerbating insect infestations (most notably bark beetles), which in turn make forests more susceptible to wildfire. Drought stress makes trees and vegetation more susceptible to attack by insects, and warmer winter temperatures allow a higher number of insects to survive and increase their populations. Warmer temperatures can also increase reproductive rates of insects, resulting in two generations in a single year. Finally, warmer temperatures allow insects to invade areas previously outside their natural range, as has happened with the mountain pine beetle in the western United States.[213] Research has also demonstrated links between warmer temperatures and drought on extensive insect outbreaks in southwestern forests and Alaska.[214]

WILDLIFE AND ENDANGERED SPECIES

If climate change goes unchecked, it could lead to the extinction of up to 40 percent of the world's species by the latter half of this century. The International Union for the Conservation of Nature's 2008 annual report lists 38 percent of catalogued species as already threatened with extinction—including nearly 25 percent of all

[209] Anthony L. Westerling et al., *Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity*, 313 Science 940 (2006).

[210] N. P. Gillett et al., *Detecting the Effect of Climate Change on Canadian Forest Fires*, 31 Geophysical Research Letters L18211 (2004).

[211] M. D. Flannigan et al., *Future Area Burned in Canada*, 72 Climatic Change 1 (2005).

[212] Guido R. Van der Werf et al, *Continental-Scale Partitioning of Fire Emissions During the 1997 to 2001 El Niño/La Niña Period*, 303 Science 73 (2004).

[213] U.S. Climate Change Science Program, *Synthesis and Assessment Product 4.3, The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States*, at 81–82 (May 2008).

[214] U.S. Global Change Research Program, *The Potential Consequences of Climate Variability and Change: Foundation Report*, at 620 (2001) (online at http://www.usgcrp.gov/usgcrp/Library/nationalassessment/foundation.htm).

mammals.[215] According to the IPCC's Fourth Assessment Report, "the resilience of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change, associated disturbances, (e.g. flooding, drought, wildfire, insects, ocean acidification), and other global change drivers."[216]

According to the IPCC: "Approximately 20–30 percent of plant and animal species assessed so far are likely to be at an increased risk of extinction if increases in global average temperature exceed 1.5 − 2.5 °C [2.7 − 4.5 °F]."[217] Additional warming could lead to "significant extinctions around the globe," including the loss of more than 40 percent of all plant and animal species.[218]

The species most vulnerable to climate change have a specialized habitat, a narrow environmental tolerance that is likely to be exceeded due to climate change, and dependence on specific environmental triggers or interactions that are likely to be disrupted by climate change. The IPCC identifies "coral reefs, the sea-ice biome, and other high-latitude ecosystems (e.g. boreal forests), mountain ecosystems and mediterranean-climate ecosystems" as the systems most vulnerable to the impacts of climate change.[219] One tragic and iconic example is the polar bear. Polar bear populations are expected to decline by 30 percent in the next 35 to 50 years—and to disappear from Alaska altogether—due to disappearing habitat resulting from global warming.[220]

NATIONAL SECURITY IMPACTS

The current and projected impacts of global warming have serious national security consequences for the United States and our allies, in many cases acting as "threat multipliers." The security issues raised by global warming have received increasing scrutiny in the last few years both in Congress and in international venues, including a debate at the UN Security Council in April 2007. The first-ever U.S. government analysis of the security threats posed by global climate change was issued in June 2008 as the National Intelligence Assessment (NIA), *National Security Implications of Global Climate Change to 2030*. The 2008 NIA was the result of a process initiated, in part, by the introduction of H.R. 1961, the "Climate Change Security Oversight Act," which required the U.S. Intelligence Community to analyze the national security implications of global climate change. In addition, U.S. and European military and security policy analysts have issued a number of public reports exploring the security consequences of global warming and potential responses. All of these reports emphasize concerns over a few key security impacts, including migration, water scarcity, infrastructure at risk from extreme weather, and new economic routes and access to new energy resources. In most cases, global warming

[215] International Union for the Conservation of Nature, *IUCN Red List Reveals World's Mammals in Crisis* (Oct. 6, 2008) (online at http://www.iucn.org/news_events/events/congress/index.cfm?uNewsID=1695).

[216] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policy Makers* at 11 (2007).

[217] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policy Makers* at 11 (2007).

[218] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policy Makers* at 16 (2007).

[219] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policymakers* at 214 (2007).

[220] See, e.g., *Experts Predict Polar Bear Decline*, Washington Post (July 7, 2005) (online at http://www.washingtonpost.com/wp-dyn/content/article/2005/07/06/AR2005070601899.html).

is not creating "new" security threats, but rather is acting as a "threat multiplier."[221]

Numerous impacts of global warming could ultimately increase both the temporary and permanent migration of people inside and across existing national borders—increasing risks of geopolitical instability. Nations dealing with an influx may have neither the resources nor the desire to support climate migrants. As in the past, movement of people into new territory can increase the likelihood of conflict and the potential need for intervention from U.S. and allied military forces.

Rising sea levels threaten low-lying island nations and populous coastal areas. Even if not totally inundated, rising sea levels can render these areas uninhabitable due to sea water incursion into fresh water resources and increased exposure to storms. For example, the risk of coastal flooding in Bangladesh is growing and could force 30 million people to search for higher ground in a country already known for political violence. India is already building a wall along its border with Bangladesh.[222] The densely-populated and oil-rich Niger Delta is already the scene of conflict over the sharing of oil revenues. Land loss and increased risk of storms will exacerbate these tensions as well as the challenge of maintaining the existing oil infrastructure. Other important economic and agricultural coastal areas, like Egypt's Nile Delta and China's southeast coast, are also threatened from rising sea-levels and severe storms. Similar impacts in Central America and the Caribbean could add pressure to pre-existing migration patterns from those areas to the United States.

Increased water scarcity due to climate change exacerbates the risk of conflict over water resources. As discussed above, changing precipitation patterns and increasing temperatures are likely to increase the risk of water scarcity and degraded water quality in many areas. Security experts have long been concerned about the prospects for conflict over water resources in many regions of the developing world, which will be exacerbated by climate change. Water scarcity will also increase the pressure on groups to migrate to areas perceived to have more resources.

Global warming is predicted to directly impact U.S. military infrastructure at risk of damage from extreme weather and melting permafrost. Infrastructure upgrades, repair and replacement to increase resilience to global warming impacts, and rebuilding after extreme weather events will be costly. For example, the East and Gulf Coasts will be at increased risk from storm surge, and U.S. naval shipbuilding facilities have already been damaged by Hurricanes Katrina and Rita. Many active U.S. coastal military installations around the world are at a significant and increasing risk of damage from storm surges and associated flooding and damages. For example, the U.S. airbase at Diego Garcia in the Indian Ocean, which is critical to operations in Iraq and the surrounding region,

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[221] House Committee on Energy and Commerce, Subcommittee on Energy and Environment, *Hearing on The American Clean Energy and Security Act of* 2009 (111th Cong.) (April 24, 2009) (online at http://energycommerce.house.gov/Press_111/20090424/testimony_warner.pdf).

[222] *The Gathering Storm*, OnEarth (Summer 2008) (online at http://www.onearth.org/article/the-gathering-storm?page=all).

is an average of four feet above sea level and is threatened by sea level rise and storm surges.[223]

Changes in severe weather can also threaten energy supplies, as demonstrated in the devastating hurricane season in 2005. The paths of Hurricane Katrina and Hurricane Rita passed through three-quarters of the oil platforms and two-thirds of the natural gas platforms in the Gulf of Mexico and a major concentration of refining capacity on land. Together they destroyed more than a hundred offshore platforms and damaged 183 pipelines. More than 1.5 million barrels of oil and 10 billion cubic feet of natural gas production per day were taken off-line for both hurricanes. Katrina also significantly affected electricity supply with 2.7 million customers and other critical infrastructure losing power.[224] In Alaska, melting permafrost and fewer days with

Finally, accelerating melting of Arctic sea ice is impacting the United States' strategic interests in the region. Russia has moved to stake claim to more than 460,000 square miles of territory, including areas with potential oil and natural gas resources.[225] With the opening of the Northwest Passage for the first time in recorded history, the Prime Minister of Canada announced his intention to increase his country's military presence in the Arctic.[226] Other circumpolar nations, including the United States, have begun to examine their potential claims on Arctic territory and identify necessary preparations for increased maritime traffic in the area.

THE ECONOMIC COSTS OF CLIMATE CHANGE

Climate change impacts of the types described above will have staggering economic impacts in the United States and the rest of the world in the coming decades. Measuring these impacts in dollars is a unique challenge, requiring analysis of local and global impacts, long time horizons, quantification of risk and uncertainty, and capturing the possibility of tipping points that induce major, catastrophic change. While the variables are many and complex, estimates of potential economic impacts are massive. The Stern Review—one of the most in-depth and respected economic impact analyses on climate change conducted thus far—used formal economic models to estimate that unabated climate change will cost at least 5 percent of global gross domestic product (GDP) each year.[227] This amounts to around $3.3 trillion per year at the current value of the global economy.[228] If a wider range of risks and impacts is taken into account, the damages could rise to 20 percent of GDP or more annually over the next two centuries.

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[223] The CNA Corporation, *National Security and the Threat of Climate Change* at 37 (2007) (online at http://securityandclimate.cna.org/report/National percent20Security percent20and percent20the percent20Threat percent20of percent20Climate percent20Change.pdf).

[224] Senate Committee on Energy and Natural Resources, Testimony of Secretary of Energy Samuel Bodman, *Hurricanes Katrina and Rita*, 109th Cong. (Oct. 27, 2005). an adequate amount of snow for exploration purposes could hinder oil production and transport of oil from fields on the North Slope.

[225] Scott Borgerson, *Arctic Meltdown: The Economic and Security Implications of Global Warming*, Foreign Affairs (Mar./Apr. 2008).

[226] Scott Borgerson, *Arctic Meltdown: The Economic and Security Implications of Global Warming*, Foreign Affairs (Mar./Apr. 2008).

[227] Nicholas Stern, *Stern Review on The Economics of Climate Change* (2007) (online at http://www.hm-treasury.gov.uk/stern_review_report.htm).

[228] CIA World Fact Book (online at https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html#Econ).

In the United States, the economic impacts of climate change are predicted to be felt throughout the country and within all sectors of the economy. The greatest economic impacts are predicted to stem from stress to fresh water supply networks, changes to the agricultural sector, threats to coastal infrastructure from storms and sea level rise, effects on energy supply and demand, increased risk to human health, and more frequent and extensive forest fires.[229] Tourism and other weather-dependent industries may be hit especially hard. Modeling results from a recent Tufts University and Natural Resources Defense Council study show that if present trends continue, the total cost of four global warming impacts alone—hurricane damage, real estate losses, energy costs, and water costs—could cost the United States nearly $1.9 trillion annually by 2100 (in constant 2008 dollars), or 1.8 percent of U.S. GDP. Factoring in a wider range of harms such as health impacts and wildlife damages, these costs could reach 3.6 percent of GDP annually in the United States by 2100.[230]

IMPACTS ON VULNERABLE COMMUNITIES

Climate change is predicted to have devastating impacts on the developing world, reversing gains in poverty reduction, food security and nutrition, health, and basic services and putting millions of lives at risk. Poor communities are especially vulnerable because they have less capacity to adapt to changes in climate and are more dependent on climate-sensitive resources such as local water and food supplies.[231] Increased exposure to drought and water scarcity, more intense storms, floods, and other environmental pressures are projected to reverse many of the recent gains in poverty alleviation around the world, adding to the total of 2.6 billion people now living on $2 a day or less. By the end of the century, an additional 145–220 million people in South Asia and Sub Saharan Africa could fall below the $2 per day poverty level as a result of climate change impacts.[232]

Poor communities and communities of color within the United States are vulnerable to climate change impacts as well, and suffer disproportionately from illnesses due to the social determinants of health. As Hurricane Katrina demonstrated, poorer communities are especially vulnerable to extreme weather events. Poorer communities and communities of color are also more vulnerable to public health impacts of climate change. Today, more than 70 percent of African Americans live in counties in violation of federal air pollution standards.[233] As a result, African Americans are nearly

[229] University of Maryland Center for Integrative Environmental Research, *The U.S. Economic Impacts of Climate Change and the Costs of Inaction* at 10–15 (October 2007) (online at http://dl.klima2008.net/ccsl/us_economic.pdf).

[230] Natural Resources Defense Council, *The Cost of Climate Change: What We'll Pay if Global Warming Continues Unchecked* at vi (May 2008) (online at http://www.nrdc.org/globalwarming/cost/cost.pdf).

[231] Intergovernmental Panel on Climate Change, *Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policymakers* at 7, 22 (2007).

[232] Nicholas Stern, *Stern Review on The Economics of Climate Change* at 55 (2007) (online at http://www.hm-treasury.gov.uk/stern_review_report.htm).

[233] Congressional Black Caucus Foundation, *Climate Change and Extreme Weather Events: An Unequal Burden on African Americans* (Sept. 2005) (online at http://www.cbcfinc.org/pdf/climatechange_issuebrf.pdf).

three times as likely to be hospitalized or killed by asthma.[234] In Harlem, New York, 25 percent of children now have asthma.[235] Latinos—66 percent of whom live in areas that violate federal air quality standards—face disproportionate health impacts as well.[236] These impacts are exacerbated by their disproportionate lack of health insurance and lower utilization of health services compared with both non-Hispanic whites and African Americans.

Vulnerable Alaskans are already dealing with the harsh reality of global warming. According to the U.S. Army Corps of Engineers, at least three Alaskan villages—Shishmaref, Kivalina, and Newtok—will be lost to coastal erosion due to rising sea levels in the next 8 to 13 years.[237] With flooding and erosion currently affecting 184 out of 213, or 86 percent, of Alaska Native villages to some extent,[238] the number of villages needing major assistance is likely to increase. The cost of saving these villages through either man-made erosion protection or total community relocation could be up to $200 million or more per village.[239]

INTERNATIONAL CLIMATE NEGOTIATIONS

Because a global effort will be required to protect the planet from the looming climate crisis, the Committee crafted this legislation with an international treaty in mind. A December 2007 meeting in Bali, Indonesia in December 2007 established a "roadmap" for future negotiations, which calls for the completion of such an agreement to govern international global warming pollution reduction efforts at the Fifteenth Conference of the Parties to the United Nations Framework Convention on Climate Change at Copenhagen in December 2009.

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

In 1992, the United Nations convened 172 nations at the Earth Summit in Rio de Janeiro for the first attempt of governments to fundamentally address global warming. From the summit, the United Nations Framework Convention on Climate Change (UNFCCC) emerged. It came into effect in 1994 and was ultimately ratified by 192 nations, including the United States. The Convention set the ultimate objective of stabilizing atmospheric greenhouse gas concentrations at safe levels and incorporated a voluntary initial goal that industrialized countries should take the lead in tackling the problem by cutting their emissions to 1990 levels by 2000.

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[234] Environmental Justice and Climate Change Initiative, *Climate of Change: African Americans, Global Warming*, and a Just Climate Policy for the U.S. at 2 (2008) (online at http://www.ejcc.org/climateofchange.pdf).

[235] *Study Finds Asthma in 25 percent of Children in Central Harlem*, New York Times (April 19, 2003).

[236] Natural Resources Defense Council, *Hidden Danger: Environmental Health Threats in the Latino Community*, at vii, 14 (Oct. 2004) (online at http://www.nrdc.org/health/effects/latino_english/latino—en.pdf).

[237] U.S. Army Corps of Engineers, *Alaska Village Erosion Technical Assistance Program* (April 2006) (online at http://housemajority.org/coms/cli/AVETA_Report.pdf).

[238] Government Accountability Office, *Alaska Native Villages* (June 29, 2004) (GAO–04–895T) (online at http://www.gao.gov/new.items/d04895t.pdf).

[239] U.S. Army Corps of Engineers, *Alaska Village Erosion Technical Assistance Program* (April 2006) (online at http://housemajority.org/coms/cli/AVETA_Report.pdf).

THE KYOTO PROTOCOL

In 1995, the first meeting of the Conference of the Parties (COP) to the UNFCCC adopted the Berlin Mandate, which called for the negotiation of a new agreement that would augment the UNFCCC with stricter demands for reducing emissions. This led to the development of the Kyoto Protocol, which was signed in 1997 by 84 countries. The Protocol set mandatory targets for the reduction of greenhouse gas emissions from the world's developed countries by an average of 5.2 percent below 1990 levels between 2008 and 2012. Ultimately 175 countries—including virtually all developed countries other than the United States and Australia—ratified the Protocol, which officially entered into force in February 2005. Australia ratified the Protocol in December 2007, leaving the United States as the only industrialized country that has not done so.

Kyoto establishes a cap-and-trade system that allows developed countries to meet their commitments through trading of marketable credits under the International Emissions Trading System (IET). Kyoto's other "flexibility mechanisms"—Joint Implementation (JI) and the Clean Development Mechanism (CDM)—allow developed countries to meet their emissions targets in part through the purchase of tradable offset credits generated by emission reduction projects in other countries. Through this array of market-based mechanisms, the Kyoto Protocol laid the groundwork for what has become known as the global "carbon market."

UNITED NATIONS CLIMATE CHANGE CONFERENCE IN BALI, INDONESIA

From December 3–15, 2007, representatives from more than 180 countries met in Bali, Indonesia for the thirteenth conference of the parties to the UNFCCC. The principal item on the agenda was the development of a "roadmap" for the negotiation of a new global climate change agreement governing the period after 2012, when the Kyoto Protocol's commitment period ends.

The Bali Action Plan—the "roadmap" agreement reached at the conference—calls upon the parties to negotiate a new agreement to be adopted at the Fifteenth Conference of the Parties, to be held in Copenhagen, Denmark in December 2009.[240] The roadmap recognizes the findings of the IPCC's 2007 Fourth Assessment Report that global warming is unequivocal and that delay in reducing emissions increases the risk of severe climate change impacts and decreases the opportunity to achieve lower stabilization levels of greenhouse gases. The agreement further recognizes that "deep cuts in global emissions will be required" to avoid dangerous impacts from climate change and emphasizes the IPCC's findings regarding the "urgency to address climate change"—referring in a footnote to the IPCC's conclusions regarding the range of emission reductions required to meet certain atmospheric greenhouse gas stabilization targets.

The roadmap identifies four major pillars of climate policy as the basis for future negotiations: mitigation, adaptation, technology development and transfer, and financial resources and investment. With regard to mitigation, the agreement calls for consideration of actions by both developed and developing countries. For developed

[240] Decision 1/CP.13, "Bali Action Plan," available at http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=3.

countries, the roadmap calls for consideration of "measurable, reportable, and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives." The roadmap also included developing countries in the mitigation agreement for the first time. Developing nations agreed to consider "nationally appropriate mitigation actions" that are "measurable, reportable and verifiable" so long as they are supported by "measurable, reportable and verifiable" support in the form of technology transfer, financing, and capacity-building. In addition, the roadmap calls, among other things, for consideration of enhanced action on adaptation to climate change, technology transfer to developing countries, and financial support for mitigation and adaptation activities in developing countries.

LEGISLATIVE HISTORY

During the 110th Congress, the House Committee on Energy and Commerce held dozens of hearings on energy and climate change policy that have built a detailed, factual record regarding the need for energy and climate change legislation. These hearings examined the scientific understanding of climate change, the views of various stakeholders, promising clean energy and environmental technologies and other policy-relevant issues.[241] The Committee also released four white papers discussing various aspects of cli-

[241] Subcommittee on Energy and Air Quality, *Hearing on Addressing Climate Change—Views from Private Sector Panels* (Feb. 13, 2007); Subcommittee on Energy and Air Quality, *Hearing on A Review of the Administration's Proposal for the Transportation Sector* (Feb. 28, 2007); Subcommittee on Energy and Air Quality, *Hearing on Carbon Capture and Sequestration: An Overview* (Mar. 6, 2007); Subcommittee on Energy and Air Quality, *Hearing on Climate Change: Are Greenhouse Gas Emissions from Human Activities Contributing to a Warming of the Planet?* (Mar. 7, 2007); Subcommittee on Energy and Air Quality, *The Environmental Protection Agency's Fiscal Year 2008 Budget Request* (Mar. 8, 2007); Subcommittee on Energy and Air Quality, *Hearing on Climate Change and Energy Security: Perspectives from the Automobile Industry* (Mar. 14, 2007); Subcommittee on Energy and Air Quality, *Hearing on Climate Change: State and Local Perspectives* (Mar. 15, 2007); Subcommittee on Energy and Air Quality, *Hearing on Climate Change: Perspectives of Utility CEOs* (Mar. 20, 2007); Subcommittee on Energy and Air Quality, *Hearing on Perspectives on Climate Change* (Mar. 21, 2007); Subcommittee on Energy and Air Quality, *Hearing on Climate Change—International Issues, Engaging Developing Countries* (Mar. 27, 2007); Subcommittee on Energy and Air Quality, *Hearing on Climate Change—Lessons Learned from Existing Cap-and-Trade Programs* (Mar. 29, 2007); Subcommittee on Energy and Air Quality, *Hearing on Alternative Transportation Fuels: An Overview* (Apr. 18, 2007); Subcommittee on Energy and Air Quality, *Hearing on Implementation of the EPACT 2005 Loan Guarantee Programs by the Department of Energy* (Apr. 24, 2007); Subcommittee on Energy and Air Quality, *Hearing on Achieving—At Long Last—Appliance Efficiency Standards* (May 1, 2007); Subcommittee on Energy and Air Quality, *Hearing on Facilitating the Transition to a Smart Electric Grid* (May 3, 2007); Subcommittee on Energy and Air Quality, *Hearing on Alternative Fuels: Current Status, Proposals for New Standards, and Related Infrastructure Issues* (May 8, 2007); Subcommittee on Energy and Air Quality, *Hearing on Legislative Hearing on Discussion Drafts concerning Energy Efficiency, Smart Electricity Grid, Energy Policy Act of 2005 Title XVII Loan Guarantees, and Standby Loans for Coal-to-Liquids Projects* (May 24, 2007); Subcommittee on Energy and Air Quality, *Hearing on Legislative Hearing on Discussion Draft Concerning Alternative Fuels, Infrastructure, and Vehicles* (June 7, 2007); Subcommittee on Energy and Air Quality, *Hearing on Administration Perspectives on United Nations Climate Change Conference in Bali* (Jan. 17, 2008); Subcommittee on Energy and Air Quality, *Hearing on Climate Change: Competitiveness Concerns and Prospects for Engaging Developing Countries* (Mar. 5, 2008); Subcommittee on Energy and Air Quality, *Hearing on Strengths and Weaknesses of Regulating Greenhouse Gas Emissions Using Existing Clean Air Act Authorities* (Apr. 10, 2008); Subcommittee on Energy and Air Quality, *Hearing on The Renewable Fuels Standard: Issues, Implementation, and Opportunities* (May 6, 2008); Subcommittee on Energy and Air Quality, *Hearing on Legislative Proposals to Reduce Greenhouse Gas Emissions: An Overview* (June 19, 2008); Subcommittee on Energy and Air Quality, *Hearing on Climate Change: Costs* of *Inaction* (June 26, 2008); Subcommittee on Energy and Air Quality, *Hearing on H.R. 6258, the Carbon Capture and Storage Early Deployment Act* (July 10, 2008); Subcommittee on Energy and Air Quality, *Hearing on Climate Benefits of Improved Building Energy Efficiency* (July 17, 2008); Subcommittee on Environment and Hazardous Materials, *Carbon Sequestration: Risks, Opportunities, and Protection of Drinking Water* (July 24, 2008).

mate legislation.[242] In October 2008, Chairman John D. Dingell and Subcommittee on Environment and Air Quality Chairman Rick Boucher released a discussion draft of climate legislation.

The first hearing held by the Committee in the 111th Congress focused on climate change and a legislative proposal put forward by the U.S. Climate Action Partnership, a coalition of industry and environmental organizations.[243] The Subcommittee on Energy and Environment had an aggressive hearing schedule—holding eight hearings in a six-week period:

- Subcommittee on Energy and the Environment, *Hearing on The Climate Crisis: National Security, Economic, and Public Health Threats* (Feb. 12, 2009);
- Subcommittee on Energy and the Environment, *Hearing on Energy Efficiency: Complementary Policies for Climate Legislation* (Feb. 24, 2009);
- Subcommittee on Energy and the Environment, *Hearing on Renewable Energy: Complementary Policies for Climate Legislation* (Feb. 26, 2009);
- Subcommittee on Energy and the Environment, *Hearing on the Role of Offsets in Climate Legislation* (Mar. 5, 2009);
- Subcommittee on Energy and the Environment, *Hearing on the Future of Coal Under Climate Legislation* (Mar. 10, 2009);
- Subcommittee on Energy and the Environment, *Hearing on Consumer Protection Provisions in Climate Legislation* (Mar. 12, 2009);
- Subcommittee on Energy and the Environment, *Hearing on Competitiveness and Climate Policy: Avoiding Leakage of Jobs and Emissions* (Mar. 18, 2009); and
- Subcommittee on Energy and the Environment, *Hearing on Preparing for Climate Change: Adaptation Policies and Programs* (Mar. 25, 2009).

The Subcommittee also convened informal sessions to engage in discussion with leaders from the international community. On March 4, 2009, the Subcommittee held a briefing on international climate negotiations and policy with the U.K. Minister of Energy and Climate Change Ed Miliband and the Danish Minister of Climate and Energy Connie Hedegaard. Also, on March 18, 2009, the Subcommittee hosted a briefing by the Secretary-General of the United Nations Ban Ki-moon. The Secretary-General informed the Subcommittee about his views on the importance of addressing climate change and the status of the international climate negotiations.

On March 31, 2009, Chairman Henry A. Waxman and Subcommittee Chairman Edward J. Markey released a discussion draft of the American Clean Energy and Security Act of 2009. Committee staff subsequently briefed more than 300 diverse entities and organizations about the legislation. Participants in Committee briefings represented the broad array of stakeholders interested in and affect by energy and climate legislation, including representatives of the

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[242] Committee on Energy and Commerce, *Scope of a Cap-and-Trade Program* (Oct. 3, 2007); Committee on Energy and Commerce, *Competitiveness Concerns/Engaging Developing Countries* (Jan. 31, 2008); Committee on Energy and Commerce, *Appropriate Roles for Different Levels of Government* (Feb. 25, 2008); Committee on Energy and Commerce, *Getting the Most Greenhouse Gas Reductions for Our Money* (May 27, 2008).

[243] Committee on Energy and Commerce, *Hearing on the U.S. Climate Action Partnership* (Jan. 15, 2009).

electricity industry, manufacturers, refiners, agricultural and forestry interests, labor, environmental advocacy groups, faith groups, and state and local governments.

From April 21 to 24, 2009, the Committee held four days of legislative hearings on the discussion draft. Nearly 70 witnesses testified, including former Vice President Al Gore and former Speaker of the House Newt Gingrich. The legislation was available for review by both majority and minority Committee members, as well as outside experts and the public, for nearly seven weeks prior to Committee markup. On May 15, 2009, Chairman Waxman and Subcommittee Chairman Markey introduced H.R. 2454, the "American Clean Energy and Security Act of 2009".

COMMITTEE CONSIDERATION

On Monday, May 18, 2009, Tuesday, May 19, 2009, Wednesday, May 20, 2009, and Thursday, May 21, 2009, the full Committee met in open markup session to consider H.R. 2454. During the 4 days of markup, there were 96 amendments offered of which 36 amendments were adopted. On May 21, 2009, the Committee ordered H.R. 2454 favorably reported to the House, amended.

COMMITTEE VOTES

Clause 3(b) of rule XIII of the Rules of the House of Representatives requires the Committee to list the record votes on the motion to report legislation and amendments thereto. A motion by Mr. Markey to order H.R. 2454 favorably reported to the House, amended, was agreed to by a record vote of 33 yeas and 25 nays. The following is the recorded votes taken during Committee consideration, including the names of those Members voting for and against:

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 33

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Dingell, No. 1A, to fund innovative energy technologies by reforming the Title XVII loan program of the Energy Policy Act of 2005 and establishing the Clean Energy Deployment Administration within the U.S. Department of Energy.

DISPOSITION: **AGREED TO** by a roll call vote of 51 yeas to 6 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton	X		
Mr. Boucher	X			Mr. Stearns		X	
Mr. Pallone	X			Mr. Deal		X	
Mr. Gordon	X			Mr. Whitfield	X		
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt			
Mr. Engel	X			Mr. Buyer	X		
Mr. Green	X			Mr. Radanovich	X		
Ms. DeGette	X			Mr. Pitts	X		
Mrs. Capps	X			Ms. Bono Mack	X		
Mr. Doyle	X			Mr. Walden	X		
Ms. Harman	X			Mr. Terry	X		
Ms. Schakowsky	X			Mr. Rogers	X		
Mr. Gonzalez	X			Mrs. Myrick	X		
Mr. Inslee	X			Mr. Sullivan			
Ms. Baldwin	X			Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner	X			Ms. Blackburn	X		
Mr. Matheson	X			Mr. Gingrey	X		
Mr. Butterfield	X			Mr. Scalise	X		
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 34

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Rogers, No. 1C, inserting a new section 3 entitled "International Participation", in which the Administrator reports to Congress on greenhouse gas emissions standards in China and India.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 23 yeas to 36 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 35

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Sutton, No. 1D, adding to Title I a section 128 entitled "Temporary Vehicle Trade-In Program", authorizing a new "Cash for Clunkers" program.

DISPOSITION: **AGREED TO** by a roll call vote of 50 yeas to 4 nays, with 1 voting present.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton	X		
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton	X		
Mr. Boucher	X			Mr. Stearns	X		
Mr. Pallone	X			Mr. Deal			
Mr. Gordon	X			Mr. Whitfield			
Mr. Rush	X			Mr. Shimkus			X
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt	X		
Mr. Engel	X			Mr. Buyer	X		
Mr. Green	X			Mr. Radanovich			
Ms. DeGette	X			Mr. Pitts	X		
Mrs. Capps	X			Ms. Bono Mack	X		
Mr. Doyle	X			Mr. Walden	X		
Ms. Harman	X			Mr. Terry	X		
Ms. Schakowsky	X			Mr. Rogers	X		
Mr. Gonzalez	X			Mrs. Myrick	X		
Mr. Inslee	X			Mr. Sullivan	X		
Ms. Baldwin	X			Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess			
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson	X			Mr. Gingrey	X		
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 36

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Walden, No. 1E, to redefine the term "renewable biomass".

DISPOSITION: **NOT AGREED TO** by a roll call vote of 26 yeas to 32 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield			
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/19/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 37

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Blunt, No. 1G, adding in Title I a new section 3 entitled "Electricity Prices Increases; Residential End-Users", requiring the Administrator to certify a report to Congress to make the Act conditional on limiting retail electricity price increases to residential end-users to no more than 10 percent above 2009 rates, adjusted for inflation.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 23 yeas to 32 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell				Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone				Mr. Deal	X		
Mr. Gordon				Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack			
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 38

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Baldwin, No. 1H, In Subtitle H of Title I, rename Subtitle H "Centers" and add a new section 172 entitled "Building Assessment Centers", to create such centers at institutions of higher education.

DISPOSITION: **AGREED TO** by a roll call vote of 30 yeas to 19 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton		X	
Mr. Boucher				Mr. Stearns	X		
Mr. Pallone				Mr. Deal		X	
Mr. Gordon				Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo				Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt			
Mr. Engel				Mr. Buyer		X	
Mr. Green	X			Mr. Radanovich		X	
Ms. DeGette	X			Mr. Pitts		X	
Mrs. Capps	X			Ms. Bono Mack		X	
Mr. Doyle	X			Mr. Walden		X	
Ms. Harman				Mr. Terry		X	
Ms. Schakowsky	X			Mr. Rogers			
Mr. Gonzalez	X			Mrs. Myrick		X	
Mr. Inslee	X			Mr. Sullivan			
Ms. Baldwin	X			Mr. Murphy of PA		X	
Mr. Ross	X			Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson	X			Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT							
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 39

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Terry, No. 1I, adding in Title I a new section 3 entitled "Gasoline Prices Increases" which the Administrator certifies a report to Congress on the U.S. average retail prices of gasoline, if during the prior year exceeds $5 per gallon.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 24 yeas to 31 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt			
Mr. Engel				Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich			
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan			
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 40

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Upton, No. 1L, adding in Title I a new section 3 entitled "Maintaining Domestic Employment" which the Administrator certifies a report to Congress on the average national unemployment rate of the prior year and if unemployment meets or exceeds 15%.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 21 yeas to 34 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns			
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green				Mr. Radanovich			
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA			
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow	X						
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 41

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Baldwin, No. 1N en bloc, adding new subsections at the end of Title I, to authorize a National Bioenergy Partnership (Inslee), and to establish an Office of Consumer Advocacy within the Federal Energy Regulatory Commission (Schakowsky).

DISPOSITION: **AGREED TO** by a roll call vote of 36 yeas to 20 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton		X	
Mr. Boucher				Mr. Stearns		X	
Mr. Pallone	X			Mr. Deal		X	
Mr. Gordon				Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt		X	
Mr. Engel	X			Mr. Buyer		X	
Mr. Green	X			Mr. Radanovich			
Ms. DeGette	X			Mr. Pitts	X		
Mrs. Capps	X			Ms. Bono Mack	X		
Mr. Doyle	X			Mr. Walden		X	
Ms. Harman	X			Mr. Terry		X	
Ms. Schakowsky	X			Mr. Rogers		X	
Mr. Gonzalez	X			Mrs. Myrick		X	
Mr. Inslee	X			Mr. Sullivan		X	
Ms. Baldwin	X			Mr. Murphy of PA		X	
Mr. Ross	X			Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson	X			Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 42

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Blackburn, No. 1O, adding a new subsection at the end of section 1, to require the Administrator of the EPA, no later than 6 months from the enactment of this Act, to promulgate regulations on the disclosure of the associated direct and indirect compliance costs for several manufacturing industries.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 19 yeas to 35 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher				Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon				Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt			
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich			
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack		X	
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick			
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 43

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Castor, No. 1P, to insert in Subtitle A, after section 101 a new section 102, to clarify State authority to adopt renewable energy incentives.

DISPOSITION: **AGREED TO** by a roll call vote of 32 yeas to 18 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton		X	
Mr. Boucher				Mr. Stearns		X	
Mr. Pallone	X			Mr. Deal		X	
Mr. Gordon				Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt			
Mr. Engel	X			Mr. Buyer		X	
Mr. Green				Mr. Radanovich			
Ms. DeGette	X			Mr. Pitts			
Mrs. Capps	X			Ms. Bono Mack		X	
Mr. Doyle	X			Mr. Walden		X	
Ms. Harman				Mr. Terry		X	
Ms. Schakowsky	X			Mr. Rogers		X	
Mr. Gonzalez	X			Mrs. Myrick			
Mr. Inslee	X			Mr. Sullivan		X	
Ms. Baldwin	X			Mr. Murphy of PA		X	
Mr. Ross	X			Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn			
Mr. Matheson	X			Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 44

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Stearns, No. 1Q, to strike "placed in service after the date of enactment of this section" on page 23, line 8 of the substitute amendment.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 26 yeas to 30 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton		X	
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush				Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt			
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson	X			Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 45

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Scalise, No. 1V, to strike section 201 and make necessary conforming changes.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 20 yeas to 31 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall			
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher				Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel				Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan			
Ms. Baldwin		X		Mr. Murphy of PA			
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon							
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch							

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 46

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Stearns, No. 1X, to strike section 204.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 27 yeas to 29 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt			
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton		X					
Mr. Braley							
Mr. Welch							

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 47

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. McNerney, No. 1Z en bloc, to add a new section after section 214, to establish a WaterSense program within the EPA (McNerney), and to insert after Subtitle F of Title II a new Subtitle G to conduct a study to determine the feasibility of establishing a national product carbon disclosure program (Baldwin).

DISPOSITION: **AGREED TO** by a roll call vote of 34 yeas to 21 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton		X	
Mr. Boucher	X			Mr. Stearns		X	
Mr. Pallone				Mr. Deal		X	
Mr. Gordon	X			Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt			
Mr. Engel	X			Mr. Buyer		X	
Mr. Green	X			Mr. Radanovich		X	
Ms. DeGette	X			Mr. Pitts		X	
Mrs. Capps	X			Ms. Bono Mack		X	
Mr. Doyle	X			Mr. Walden		X	
Ms. Harman	X			Mr. Terry		X	
Ms. Schakowsky	X			Mr. Rogers		X	
Mr. Gonzalez	X			Mrs. Myrick			
Mr. Inslee	X			Mr. Sullivan		X	
Ms. Baldwin	X			Mr. Murphy of PA		X	
Mr. Ross	X			Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson	X			Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley							
Mr. Welch	X						

05/20/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 48

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Shadegg, No. 1CC en bloc, to strike efficiency mandates for certain electric products.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 22 yeas to 34 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon				Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick			
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch		X					

05/20/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 49

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Terry, No. 1DD, at the end of section 223, at the end of subsection (a)(2), add, "International indirect land use changes shall not be taken into account in determining average lifecycle greenhouse gas emissions under this section."

DISPOSITION: **NOT AGREED TO** by a roll call vote of 20 yeas to 36 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton		X	
Mr. Dingell		X		Mr. Hall			
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns			
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg		X	
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich		X	
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack		X	
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan		X	
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch		X					

05/20/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 50

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Murphy of Pennsylvania, No. 1EE, adding a new section after section 358, regarding preventing job losses in the United States steel industry.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 20 yeas to 35 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns			
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich			
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan			
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 51

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Burgess, No. 1GG, to add at the end of section 724 of the Clean Air Act, as proposed to be added by section 311 of the bill, insert language on the prohibition of the transfer or receipt of carbon credit derivatives.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 22 yeas to 35 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick			
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch		X					

05/20/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 52

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Stupak, No. 1HH, to add a new section after section 358, granting cease-and-desist authority to the Federal Energy Regulatory Commission.

DISPOSITION: **AGREED TO** by a roll call vote of 33 yeas to 20 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton		X	
Mr. Boucher				Mr. Stearns		X	
Mr. Pallone	X			Mr. Deal			
Mr. Gordon				Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt		X	
Mr. Engel	X			Mr. Buyer		X	
Mr. Green		X		Mr. Radanovich		X	
Ms. DeGette	X			Mr. Pitts		X	
Mrs. Capps	X			Ms. Bono Mack	X		
Mr. Doyle	X			Mr. Walden		X	
Ms. Harman	X			Mr. Terry	X		
Ms. Schakowsky	X			Mr. Rogers	X		
Mr. Gonzalez	X			Mrs. Myrick			
Mr. Inslee	X			Mr. Sullivan			
Ms. Baldwin	X			Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson		X		Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon		X					
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley							
Mr. Welch	X						

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 53

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Blackburn, No. 1II, to add after section 331 a new section on Greenhouse Gas regulation under the Clean Air Act.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 23 yeas to 33 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon				Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick			
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow	X						
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch		X					

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COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 54

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Gingrey, No. 1KK, in section 321, amend section 782 regarding proceeds from the auctions of emission allowances.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 4 yeas to 52 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall		X	
Mr. Markey		X		Mr. Upton		X	
Mr. Boucher		X		Mr. Stearns		X	
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield		X	
Mr. Rush		X		Mr. Shimkus		X	
Ms. Eshoo		X		Mr. Shadegg		X	
Mr. Stupak		X		Mr. Blunt		X	
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich		X	
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack		X	
Mr. Doyle		X		Mr. Walden		X	
Ms. Harman		X		Mr. Terry		X	
Ms. Schakowsky		X		Mr. Rogers		X	
Mr. Gonzalez		X		Mrs. Myrick			
Mr. Inslee		X		Mr. Sullivan		X	
Ms. Baldwin		X		Mr. Murphy of PA		X	
Mr. Ross		X		Mr. Burgess		X	
Mr. Weiner		X		Ms. Blackburn		X	
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise		X	
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley							
Mr. Welch		X					

05/20/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 55

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Walden, No. 1MM, in paragraph (11) of section 610(a) of the Clean Air Act relating to the Federal renewable electricity standard, as added by section 101, at the end of such paragraph add language relating to unlisted sources of electricity generation.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 26 yeas to 29 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon				Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel				Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan			
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson				Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 56

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Rogers, No. 1OO en bloc, inserting a new section 794 relating to employment in the Auto Parts Manufacturing Industry, the Auto Manufacturing Industry, and the Transportation Equipment Manufacturing Industry.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 22 yeas to 32 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon				Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel				Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman				Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes							
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 57

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Blunt, No. 1QQ, inserting at the end of Title III a new section entitled "Electricity Prices Increases; Residential End-Users" and making conforming changes in the table of contents.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 22 yeas to 34 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher				Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal	X		
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA			
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space							
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 58

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Radanovich, No. 1RR, inserting at the end of Title III a new section entitled "Electricity Prices Increases; Residential End-Users" and making conforming changes in the table of contents.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 19 yeas to 30 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell				Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle				Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick			
Mr. Inslee		X		Mr. Sullivan			
Ms. Baldwin		X		Mr. Murphy of PA			
Mr. Ross				Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson				Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon							
Mr. Barrow		X					
Mr. Hill							
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 59

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Shimkus, No. 1SS, inserting at the end of Title III a new section that would nullify provisions in Title III if two or more coal mines close as a result of their implementation.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 22 yeas to 34 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel				Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack			
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes	X						
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 60

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Whitfield, No. 1UU, to create a Technology Accelerator Payment option, and for other purposes.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 20 yeas to 35 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns			
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack			
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson				Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 61

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Pitts, No. 1VV, in the case of a retail electric supplier in a state which has enacted a state requirement on electricity sold to consumers, to defer the definition of "renewable energy" or "alternative energy" to the States, to decide what form of energy will best allow them to meet their RES.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 23 yeas to 31 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson				Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill							
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton							
Mr. Braley							
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 62

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: A substitute amendment by Mr. Barton, No. 1WW, to replace the language of the Amendment in the Nature of a Substitute offered by Mr. Waxman.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 19 yeas to 32 nays, with 2 voting present.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg			X
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich		X	
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden			X
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill							
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT							
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 63

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Blunt, No. 1YY en bloc, to strike part of section 813 in section 112 and insert new language and title for section 813 as "Legal Framework for Geological Sequestration Sites" (Sterns), and in section 101, add a new subparagraph at the end relating to section 610 (a)(18) of the Public Utility Regulatory Policy Act of 1978 (Blunt).

DISPOSITION: **NOT AGREED TO** by a roll call vote of 23 yeas to 33 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess			
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson	X			Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT							
Mr. Space	X						
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 64

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Scalise, No. 1DDd, restricting in section 311, the eligibility for emissions transactions to only the owners and operators of covered entities.

DISPOSITION: **NOT AGREED TO** by a roll call vote of 20 yeas to 32 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher				Mr. Stearns			
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel				Mr. Buyer	X		
Mr. Green				Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers			
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen							
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 65

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Barton, No. 1FFf en bloc, with amendments by Mr. Radanovich (1), Mr. Deal (1), Mr. Upton (1), Mr. Shadegg (2), and Mr. Walden (1).

DISPOSITION: **NOT AGREED TO** by a roll call vote of 22 yeas to 36 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack	X		
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 66

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Ms. Sutton, No. 1GGg, to provide that the Davis-Bacon provisions apply to ensure that prevailing wage rates are paid to workers on federally assisted construction activities related to this Act.

DISPOSITION: **AGREED TO** by a roll call vote of 39 yeas to 18 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton	X		
Mr. Boucher	X			Mr. Stearns		X	
Mr. Pallone	X			Mr. Deal			
Mr. Gordon	X			Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus	X		
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt		X	
Mr. Engel	X			Mr. Buyer		X	
Mr. Green	X			Mr. Radanovich		X	
Ms. DeGette	X			Mr. Pitts		X	
Mrs. Capps	X			Ms. Bono Mack		X	
Mr. Doyle	X			Mr. Walden			
Ms. Harman	X			Mr. Terry		X	
Ms. Schakowsky	X			Mr. Rogers		X	
Mr. Gonzalez	X			Mrs. Myrick		X	
Mr. Inslee	X			Mr. Sullivan		X	
Ms. Baldwin	X			Mr. Murphy of PA	X		
Mr. Ross	X			Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson	X			Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon	X						
Mr. Barrow	X						
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 67

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

AMENDMENT: An amendment to the substitute amendment by Mr. Buyer, No. 1MMm en bloc, with amendments by Mr. Buyer (1), Mr. Burgess (1), Mr. Upton (5), and Mr. Scalise (1).

DISPOSITION: **NOT AGREED TO** by a roll call vote of 20 yeas to 38 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman		X		Mr. Barton	X		
Mr. Dingell		X		Mr. Hall	X		
Mr. Markey		X		Mr. Upton	X		
Mr. Boucher		X		Mr. Stearns	X		
Mr. Pallone		X		Mr. Deal			
Mr. Gordon		X		Mr. Whitfield	X		
Mr. Rush		X		Mr. Shimkus	X		
Ms. Eshoo		X		Mr. Shadegg	X		
Mr. Stupak		X		Mr. Blunt	X		
Mr. Engel		X		Mr. Buyer	X		
Mr. Green		X		Mr. Radanovich	X		
Ms. DeGette		X		Mr. Pitts	X		
Mrs. Capps		X		Ms. Bono Mack		X	
Mr. Doyle		X		Mr. Walden	X		
Ms. Harman		X		Mr. Terry	X		
Ms. Schakowsky		X		Mr. Rogers	X		
Mr. Gonzalez		X		Mrs. Myrick	X		
Mr. Inslee		X		Mr. Sullivan	X		
Ms. Baldwin		X		Mr. Murphy of PA	X		
Mr. Ross		X		Mr. Burgess	X		
Mr. Weiner		X		Ms. Blackburn	X		
Mr. Matheson		X		Mr. Gingrey	X		
Mr. Butterfield		X		Mr. Scalise	X		
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill		X					
Ms. Matsui		X					
Mrs. Christensen		X					
Ms. Castor		X					
Mr. Sarbanes		X					
Mr. Murphy of CT		X					
Mr. Space		X					
Mr. McNerney		X					
Ms. Sutton		X					
Mr. Braley		X					
Mr. Welch		X					

05/21/2009

COMMITTEE ON ENERGY AND COMMERCE – 111TH CONGRESS
ROLL CALL VOTE # 68

BILL: **H.R. 2454**, the "American Clean Energy and Security Act of 2009".

MOTION: A Motion by Mr. Markey to order H.R. 2454 favorably reported to the House, amended.

DISPOSITION: **AGREED TO** by a roll call vote of 33 yeas to 25 nays.

REPRESENTATIVE	YEAS	NAYS	PRESENT	REPRESENTATIVE	YEAS	NAYS	PRESENT
Mr. Waxman	X			Mr. Barton		X	
Mr. Dingell	X			Mr. Hall		X	
Mr. Markey	X			Mr. Upton		X	
Mr. Boucher	X			Mr. Stearns		X	
Mr. Pallone	X			Mr. Deal			
Mr. Gordon	X			Mr. Whitfield		X	
Mr. Rush	X			Mr. Shimkus		X	
Ms. Eshoo	X			Mr. Shadegg		X	
Mr. Stupak	X			Mr. Blunt		X	
Mr. Engel	X			Mr. Buyer		X	
Mr. Green	X			Mr. Radanovich		X	
Ms. DeGette	X			Mr. Pitts		X	
Mrs. Capps	X			Ms. Bono Mack	X		
Mr. Doyle	X			Mr. Walden		X	
Ms. Harman	X			Mr. Terry		X	
Ms. Schakowsky	X			Mr. Rogers		X	
Mr. Gonzalez	X			Mrs. Myrick		X	
Mr. Inslee	X			Mr. Sullivan		X	
Ms. Baldwin	X			Mr. Murphy of PA		X	
Mr. Ross		X		Mr. Burgess		X	
Mr. Weiner	X			Ms. Blackburn		X	
Mr. Matheson		X		Mr. Gingrey		X	
Mr. Butterfield	X			Mr. Scalise		X	
Mr. Melancon		X					
Mr. Barrow		X					
Mr. Hill	X						
Ms. Matsui	X						
Mrs. Christensen	X						
Ms. Castor	X						
Mr. Sarbanes	X						
Mr. Murphy of CT	X						
Mr. Space	X						
Mr. McNerney	X						
Ms. Sutton	X						
Mr. Braley	X						
Mr. Welch	X						

05/21/2009

APPLICATION OF LAW TO THE LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act of 1985.

STATEMENT OF OVERSIGHT FINDINGS AND RECOMMENDATIONS OF THE COMMITTEE

In accordance with clause 3(c)(1) of rule XIII and clause (2)(b)(1) of rule X of the Rules of the House of Representatives, the Committee's oversight findings and recommendations are reflected in the descriptive portions of this report.

STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES

In accordance with clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the Committee's performance goals and objectives are reflected in the descriptive portions of this report.

CONSTITUTIONAL AUTHORITY STATEMENT

Pursuant to 3(d)(1) of rule XIII of the Rules of the House of Representatives, the Committee finds that the constitutional authority for this legislation is provided in Article I, Section 8, Clause 18 of the Constitution of the United States.

ADVISORY COMMITTEE STATEMENT

The Committee finds that the legislation establishes or authorizes the establishment of advisory committees within the definition of 5 U.S.C. App., Section 5(b). Section 186 of the bill establishes an Energy Technology Advisory Council to advise the Clean Energy Deployment Administration established by the bill. The Committee finds this advisory committee is needed to assist the CEDA in evaluating clean energy technology issues and deployment goals. Section 194 establishes a consumer advocacy advisory board. The Committee finds this advisory committee is needed to make recommendations on rates, services, and disputes to the Director of the Federal Energy Regulatory Commission Office of Consumer Advocacy. Section 464 establishes a science advisory board that the Committee finds is necessary to advise the Secretary of Health and Human Services on public health issues relating to climate change and the best science available for purposes of issuing a national strategic action plan. Section 477 establishes a science advisory board that the Committee finds is necessary to advise the Secretaries of Commerce and the Interior on state of the science regarding the impacts of climate change and ocean acidification on natural resources.

FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

EARMARKS AND TAX AND TARIFF BENEFITS

H.R. 2454 does not include any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(d), 9(e), or 9(f) of rule XXI.

COMMITTEE COST ESTIMATE

The Committee adopts as its own the cost estimate on H.R. 2454 prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act.

NEW BUDGET AUTHORITY, ENTITLEMENT AUTHORITY, AND TAX EXPENDITURES

Regarding compliance with clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, the Committee adopts as its own the estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

Pursuant to clause 3(c)(3) of rule XIII of the Rules of the House of Representatives, the following is the cost estimate on H.R. 2454 provided by the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, June 5, 2009.

Hon. HENRY A. WAXMAN,
Chairman, Committee on Energy and Commerce,
House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2454, the American Clean Energy and Security Act of 2009.

If you wish further details on these estimates, we will be pleased to provide them. The CBO staff contact is Susanne S. Mehlman.

Sincerely,

DOUGLAS W. ELMENDORF.

Enclosure.

H.R. 2454—American Clean Energy and Security Act of 2009

Summary: H.R. 2454 would make a number of changes in energy and environmental policies largely aimed at reducing emissions of gases that contribute to global warming. The bill would limit or cap the quantity of certain greenhouse gases (GHGs) emitted from facilities that generate electricity and from other industrial activities over the 2012–2050 period. The Environmental Protection Agency (EPA) would establish two separate regulatory initiatives known as cap-and-trade programs—one covering emissions of most types of GHGs and one covering hydrofluorocarbons (HFCs). EPA would issue allowances to emit those gases under the cap-and-trade programs. Some of those allowances would be auctioned by the federal government, and the remainder would be distributed at no charge.

Other major provisions of the legislation would:

- Provide energy tax credits or energy rebates to certain low-income families to offset the impact of higher energy-related prices from the cap-and-trade programs;
- Require certain retail electricity suppliers to satisfy a minimum percentage of their electricity sales with electricity generated by facilities that use qualifying renewable fuels or energy sources;
- Establish a Carbon Storage Research Corporation to support research and development of technologies related to carbon capture and sequestration;
- Increase, by $25 billion, the aggregate amount of loans DOE is authorized to make to automobile manufacturers and component suppliers under the existing Advanced Technology Vehicle Manufacturing Loan Program;
- Establish a Clean Energy Deployment Administration (CEDA) within the Department of Energy (DOE), which would be authorized to provide direct loans, loan guarantees, and letters of credit for clean energy projects;
- Authorize the Department of Transportation (DOT) to provide individuals with vouchers to acquire new vehicles that achieve greater fuel efficiency than the existing qualifying vehicles owned by the individuals; and
- Authorize appropriations for various programs under EPA, DOE, and other agencies.

CBO and the Joint Committee on Taxation (JCT) estimate that over the 2010–2019 period enacting this legislation would:

- Increase federal revenues by about $846 billion; and
- Increase direct spending by about $821 billion.

In total, those changes would reduce budget deficits (or increase future surpluses) by about $24 billion over the 2010–2019 period.

In addition, assuming appropriation of the necessary amounts, CBO estimates that implementing H.R. 2454 would increase discretionary spending by about $50 billion over the 2010–2019 period. Most of that funding would stem from spending auction proceeds from various funds established under this legislation.

CBO has determined that the non-tax provisions of H.R. 2454 contain intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). Several of those mandates would require utilities, manufacturers, and other entities to reduce greenhouse gas emissions through cap-and-trade programs and performance standards. CBO estimates that the cost of mandates in the bill would well exceed the annual thresholds established in UMRA for intergovernmental and private-sector mandates (in 2009, $69 million and $139 million respectively, adjusted annually for inflation).

PAGE REFERENCE GUIDE TO CBO COST ESTIMATE FOR H.R. 2454

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Common Abbreviations Used in the Cost Estimate

CCS = Carbon capture and sequestration
CO_2 = Carbon dioxide
CEDA = Clean Energy Development Administration
CFC = Chlorofluorocarbon
$mtCO_2e$ = Metric ton of carbon dioxide equivalent
GHG = Greenhouse gas
HFC = Hydrofluorocarbon
MWh = Megawatt hour
REC = Renewable electricity credit
RES = Renewable electricity standard

MAJOR PROVISIONS

The major provisions of H.R. 2454 are described in the following sections.

CAP-AND-TRADE PROGRAMS FOR GREENHOUSE GASES

This legislation would designate as GHGs: carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, nitrogen trifluoride, and HFCs from a chemical manufacturing process at a stationary industrial source. EPA would be required to establish two cap-and-trade programs aimed at reducing the emission of GHGs in the United States over the 2012–2050 period. One program would cover emissions of GHGs other than HFCs. A second program would cover the production and importation of HFCs and the importation of products containing HFCs. (Although HFCs are considered to be greenhouse gases, this cost estimate will subsequently refer to the larger program as the GHG cap-and-trade program and the smaller program specific to HFCs as the HFC cap-and-trade program).

A cap-and-trade program is a regulatory policy aimed at controlling pollution emissions from specific sources. The legislation would set a limit on total emissions for each year and would require regulated entities to hold rights, or allowances, to the emissions permitted under that cap. Each allowance would entitle companies to emit the equivalent of one metric ton of carbon dioxide equivalent ($mtCO_2e$).[1] After the allowances for a given period were distributed, entities would be free to buy and sell allowances.

ENTITIES COVERED BY CAP-AND-TRADE PROGRAMS

Based on information from EPA, CBO estimates that about 7,400 facilities would be affected by the cap-and-trade programs established by the bill. The specific details regarding coverage, attribu-

[1] A carbon dioxide equivalent is defined for each GHG as the quantity of that gas that makes the same contribution to global warming as one metric ton of carbon dioxide, as determined by EPA.

tion of emissions to covered entities, and the timing of implementation vary by type of entity and sector of the economy:

- Beginning in 2012, all electricity generators would be required to submit allowances for all GHG emissions from their sites, with the exception of emissions from the combustion of liquid fuels, coke, and renewable biomass;
- Also beginning in 2012, any facility or entity that produces or imports petroleum- or coal-based liquids, petroleum coke, or natural gas liquids would be required to submit allowances for the GHG emissions that would result from the combustion of those fuels, if combustion of the fuel resulted in the emission of more than 25,000 $mtCO_2e$ per year. Similarly, all facilities or entities that produce or import GHGs for direct use would be required to submit allowances for the emissions that would result when those gases were released into the atmosphere. Emissions from sites that geologically sequester CO_2 also would be covered beginning in 2012;
- Beginning in 2014, industrial facilities that manufacture a wide variety of products or that burn fossil fuels would be required to submit allowances for all GHG emissions from their sites—with the exception of emissions from the combustion of various types of liquid fuels, coke, and renewable biomass—if their activities result in more than 25,000 $mtCO_2e$ of emissions;
- Beginning in 2016, natural gas distributors that deliver at least 460 million cubic feet of natural gas to customers that are not covered by the cap-and-trade provisions of the bill would need to submit allowances for the GHG emissions that would result from the combustion of the gas delivered to those customers; and
- Under a separate cap, beginning in 2012, producers and importers of HFCs, and importers of products containing HFCs, would be required to submit allowances for the carbon dioxide-equivalent tons of HFC they produce or import.

According to CBO's estimates, the programs would cover about 72 percent of U.S. emissions of GHGs in 2012, about 78 percent in 2015, and about 86 percent in 2020.

OPERATION OF THE GHG CAP-AND-TRADE PROGRAM

H.R. 2454 would not restrict the types of entities or individuals who could purchase, hold, exchange, or retire emission allowances under the GHG cap-and-trade program. An unlimited number of allowances obtained in one year could be saved or "banked" by market participants indefinitely to be used or sold in future years. Limited borrowing of allowances (that is, the use in one year of an allowance that has been established for use in a future year) also would be permitted. The program would allocate to covered entities 4,627 million $mtCO_2e$ allowances in 2012—about 97 percent of the amount of such emissions by covered entities in 2005. The number of allowances would increase to as high as 5,482 million $mtCO_2e$ in 2016 to account for certain covered entities that would not begin compliance until that time, and then decline by 100 million to 150 million $mtCO_2e$ per year—falling to 1,035 million $mtCO_2e$ in 2050, about 14 percent of projected emissions from covered entities in the absence of and regulation of such emissions.

The legislation also would require EPA to create a "strategic reserve" of about 2.7 billion allowances by setting aside a small number of allowances authorized to be issued each year. EPA would auction allowances from its strategic reserve only if the market price of allowances rose to unexpectedly high levels.

A portion of an entity's compliance obligation under the bill could be met by purchasing domestic or international "offsets" in lieu of purchasing an allowance. An offset would be created by activities (as certified by EPA) that are not directly related to the emissions of the facilities covered under the bill, but would reduce GHG emissions or increase the amount of such gases that are captured from the atmosphere and stored (this process is referred to as sequestration). Examples of such offset activities include reducing emissions of methane gas from solid waste landfills, sequestering GHGs on agricultural lands, rangelands, and forests, altering agricultural tillage practices, planting winter crops, and reducing the use of nitrogen fertilizer. Under the bill, such offsets could occur domestically or in another country if the United States is a party to a bilateral or multilateral agreement or arrangement with the relevant country. Those international agreements or arrangements would specify the types of qualifying projects and methods for verifying the validity of offset activities. Covered entities could also purchase GHG emission allowances established by other countries or international organizations if approved by EPA.

The cap for the GHG cap-and-trade program would take effect in 2012. Of the emission allowances established for this program less the amount set aside for the strategic reserve (4,581 million $mtCO_2e$ in 2012), 29.6 percent would initially be auctioned for sale from that vintage year (that is, the calendar year for which an allowance is established) to covered industries and other entities that wish to purchase them. Auctions would occur four times a year, with the first auction occurring no later than March 31, 2011. Emission allowances not specified for auction in the bill would be distributed free of charge to covered entities, states, and other specified recipients, who could then retire, sell, or use such allowances to meet the annual obligation for their own emissions. The percentage of emission allowances auctioned and freely allocated by vintage years 2012 through 2019 is provided in Table 1. By 2022, the percentage of allowances auctioned would increase to 18.4 percent and gradually increase to about 70 percent in 2031 and remain at that level through 2050.

TABLE 1—GHG EMISSION ALLOWANCES UNDER H.R. 2454 AND THE PERCENTAGE AUCTIONED AND FREELY ALLOCATED

	By vintage year—							
	2012	2013	2014	2015	2016	2017	2018	2019
Quantity of Emission Allowances Less Amount Available for Strategic Reserve (In millions of metric tons)	4,581	4,499	5,048	4,953	5,427	5,321	5,216	5,110
Percentage Auctioned	29.6	29.6	17.9	17.9	17.5	17.5	17.5	17.5
Percentage Freely Allocated	70.4	70.4	82.1	82.1	82.5	82.5	82.5	82.5

Note: Vintage year is the calendar year for which an allowance is established.

Operation of the HFC cap-and-trade program

Beginning in 2012, producers and importers of HFCs as well as importers of products containing HFCs would be required to submit to EPA a consumption allowance or a destruction offset credit for each carbon dioxide-equivalent ton of HFC. EPA would be authorized to issue destruction offset credits to producers and importers of HFCs if those entities perform or arrange for the recovery and destruction of chlorofluorocarbons (CFCs) from products or equipment already in use in the United States. The allowances available would steadily decline from 90 percent of the baseline use of HFCs (defined in the legislation as the average annual consumption of HFCs plus the average annual quantity of HFCs contained in imported products over the 2004–2006 period) to 15 percent of that baseline after 2032. Destruction offset credits could be used by producers and importers to satisfy a portion of the requirement to submit consumption allowances.

The bill would allow entities to bank an unlimited number of HFC allowances for future use. In contrast to the GHG cap-and-trade program, only those entities that produce and import HFCs or import products containing HFCs would be permitted to purchase an allowance directly from EPA, although EPA would have the authority to establish certain exceptions. (The legislation, however, would not restrict which entities could hold, sell, transfer, exchange, or retire consumption allowances in any secondary market for HFC allowances.)

All of the consumption allowances established for the HFC cap-and-trade program would be either auctioned or offered through a fixed-price sale to producers and importers of HFCs and products containing HFCs. The legislation specifies how the HFC allowance price would be calculated for certain auctions and for all fixed-price sales.

Refundable low-income energy tax credit and energy rebate program

The bill would create a new refundable energy tax credit and rebate program aimed at offsetting the impact of the GHG cap-and-trade program on energy prices faced by low-income families. The credit would be based on the average loss of purchasing power for the poorest fifth of people caused by higher prices for energy and other goods. The credit would vary with family size, based on the average spending for families of different sizes at the bottom of the income scale. The credit amount would be calculated using the share of total expenditures made by those families, the GHG intensity of that spending, the amount of other relief provided to consumers under the bill, and how much of recipients' reduced purchasing power would be automatically offset by federal cost-of-living adjustments in other federal benefit programs.

Combined energy efficiency and renewable electricity standard (RES)

H.R. 2454 would require that, starting in 2012, certain retail electricity suppliers provide a minimum percentage of their electricity sales from electricity generated by facilities that use qualifying renewable fuels or energy sources. That percentage would be measured relative to the portion of a supplier's base sales of electricity generated from sources specified in the bill and would need

to equal or exceed 6 percent of such sales by each covered supplier in 2012 and increase to 20 percent by 2020. To meet the RES requirement, suppliers would have to generate their own qualifying renewable power, purchase renewable energy credits (RECs) from other firms, or make alternative compliance payments to the state in which they operate. Upon request from a state government, electricity suppliers in that state could satisfy up to 40 percent of their RES compliance obligation by demonstrating a reduction in their customers' electricity consumption through qualified energy-efficiency projects initiated after the date of the bill's enactment.

Under the bill, one federal REC would be created for each megawatt hour (MWh) of electricity generated from a renewable energy source (for example, wind, solar, or geothermal). RECs could be traded on a secondary market, enabling firms in regions where renewable energy sources are scarce or relatively expensive to purchase credits generated in regions with an excess supply of RECs. In the event an electricity supplier does not have the requisite number of RECs or sufficient reductions in customers' electricity consumption to comply with the proposed standard, such entities could choose to remit, to the state in which they operate, alternative compliance payments equal to $25 per MWh needed to meet the suppliers' compliance requirement (those payments would be adjusted annually for inflation). The legislation would require states to use any amounts received from alternative compliance payments to support the deployment of technologies to generate renewable energy and the implementation of energy-efficiency programs.

Carbon Storage Research Corporation

The legislation would authorize utilities that distribute electricity generated from fossil fuels to establish, subject to approval in a referendum by members of the electricity distribution industry, a Carbon Storage Research Corporation. The corporation would levy annual assessments on distribution utilities based on certain electricity deliveries to retail consumers. Assessments would total between $1.0 billion and $1.1 billion annually and would support research and development of technologies related to carbon capture and sequestration (CCS). Although formation of the corporation would be voluntary, once it was created, assessments would be compulsory, enforced by the federal government's sovereign authority. Therefore, CBO believes the corporation should be considered governmental in nature and all of its activities should be included in the federal budget.

Loans to manufacturers of advanced technology vehicles

H.R. 2454 would increase the amount of direct loans the DOE is authorized to provide under section 136 of the Energy Independence and Security Act (EISA). That act authorizes DOE to provide up to $25 billion in loans to automobile manufacturers and component suppliers to support capital investments in facilities designed to produce vehicles with greater fuel efficiency and reduced emissions. H.R. 2454 would amend EISA to authorize DOE to provide up to $50 billion in loans. Under the Credit Reform Act of 1990, any spending for the additional $25 billion in loans authorized under H.R. 2454 would be subject to appropriation.

Clean Energy Deployment Administration

H.R. 2454 would establish a Clean Energy Deployment Administration (CEDA) within DOE, which would be authorized to provide direct loans, loan guarantees, and letters of credit for privately sponsored projects using clean energy technologies. Such assistance would be available for investments in the energy, transportation, manufacturing, commodities, residential, commercial, and financial services sectors. The bill also would modify the terms of an existing loan-guarantee program administered by DOE.

Implementing this provision would affect discretionary spending. Under the Credit Reform Act, commitments for direct loans, loan guarantees, and similar credit assistance would be contingent on future appropriation action.

Fuel-efficient vehicle vouchers

The bill would authorize a program within DOT that would provide vouchers for the purchase or lease of a new car or truck to individuals who trade in an eligible vehicle for one that is more fuel efficient. The bill defines an eligible vehicle as one that averages 18-miles-per-gallon or less and would set minimum fuel-economy requirements for vehicles purchased or leased with a voucher. The eligible vehicle would have to be subsequently dismantled. The vouchers would range in value from $3,500 to $4,500 depending on the characteristics of both the old and the new vehicles. CBO estimates that this provision would accelerate the rate at which some older, less fuel-efficient vehicles are replaced, and cause the fleet of new vehicles purchased under the program to be more fuel efficient than it would otherwise be. As a result, fewer taxes would be collected on the sale of fuel, reducing federal revenues.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 2454 is shown in Table 2. The costs of this legislation fall within budget functions 270 (energy), 300 (natural resources and environment), 350 (agriculture), 370 (commerce and housing credit), 400 (transportation), 500 (education, training, employment, and social services), 550 (health), and 600 (income security). For this estimate, CBO assumes that H.R. 2454 will be enacted near the end of fiscal year 2009, that the amounts necessary to implement the bill will be appropriated each year, and that outlays will follow historical spending patterns for similar programs.

TABLE 2.—ESTIMATED BUDGETARY IMPACT OF H.R. 2454

	By fiscal year, in billions of dollars—											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010–2014	2010–2019
CHANGES IN REVENUES												
Total Estimated Revenues	0.9	39.1	59.1	63.5	90.6	104.0	112.3	117.6	126.1	132.3	253.2	845.6
CHANGES IN DIRECT SPENDING												
Estimated Budget Authority	1.0	33.4	51.9	67.5	88.7	102.1	110.0	116.1	122.9	128.8	242.6	822.6
Estimated Outlays	0.3	32.9	51.6	67.7	88.8	102.2	110.0	116.1	122.9	128.8	241.3	821.2

TABLE 2.—ESTIMATED BUDGETARY IMPACT OF H.R. 2454—Continued

	By fiscal year, in billions of dollars—											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010–2014	2010–2019
NET CHANGE IN THE BUDGET DEFICIT FROM CHANGES IN REVENUES AND DIRECT SPENDING												
Impact on Deficit [1]	0.6	6.1	7.5	−4.2	1.8	1.8	2.4	1.5	3.2	3.5	12.0	24.4
CHANGES IN SPENDING SUBJECT TO APPROPRIATION												
Estimated Authorization Level	5.5	9.3	3.0	3.6	4.4	5.4	6.0	6.9	8.2	8.7	25.8	61.1
Estimated Outlays	3.4	1.6	2.7	3.8	4.9	5.8	6.6	6.5	6.8	7.8	16.4	49.9

Note: Components may not sum to totals because of rounding.

[1] Positive numbers indicate decreases in deficits; negative numbers indicate increases in deficits.

Basis of estimate: CBO estimates that implementing this legislation would result in additional revenues, net of income and payroll tax offsets, of $253.2 billion over the 2010–2014 period and $845.6 billion over the 2010–2019 period. We estimate that direct spending would increase by $241.3 billion and $821.2 billion over the same periods, respectively. Those changes in revenues and direct spending would mainly stem from the process of auctioning and freely distributing allowances under the cap-and-trade programs established under this legislation. In addition, CBO estimates that implementing this legislation would increase discretionary federal spending by $49.9 billion over the 2010–2019 period, assuming appropriation of the amounts estimated to be necessary.

Budgetary treatment of allowances, RECs, and offset credits

Efforts to control GHG emissions in this legislation would be enforced through the federal government's sovereign powers and would alter the use of scarce economic resources. While similar in some ways to command-and-control approaches for regulating economic activities, the cap-and-trade system that would be established by the bill for GHG and HFC emissions is fundamentally different because it would create cash-like assets (allowances) whose supply and distribution would be determined by the federal government. As such, CBO believes it is appropriate to include all transactions involving GHG and HFC allowances (including those distributed at no cost) in the budget.

Under H.R. 2454, both firms and individuals would be eligible to trade GHG and HFC allowances acquired from the federal government in a secondary market that would exceed $60 billion in value in 2012, CBO estimates. Within such a large and liquid market, allowances could be easily and immediately traded for cash. In addition, the legislation would allow the federal government to determine the supply of allowances by defining the scope of covered emissions and limiting the number of allowances to be issued. Under those circumstances, the free distribution of allowances by the federal government would be essentially equivalent to the distribution of cash grants, so CBO believes that such transactions should be treated as additional outlays. At the same time, those allowances would be valuable financial instruments, so CBO thinks

that the creation of allowances by the federal government should be recorded as an increase in revenues.

That logic does not hinge on whether the federal government sells or, instead, gives away the allowances. Allowances would have significant value even if given away because the recipients could sell them or, in the case of a covered entity, use them to avoid incurring the cost of compliance. In either case, the recipient receives an asset of equivalent value with no estimated change in the policy effect (i.e., total GHG emissions). For example, the government could either raise $100 by selling allowances and then give that amount in cash to an entity, or it could simply give $100 worth of allowances to that same entity, which could immediately and easily transform the allowances into cash through the secondary market. Sound budgeting requires that the budget treat equivalent transactions in the same way, in CBO's view. Therefore, this estimate treats the creation of 11 allowances and their disposition as budgetary transactions, regardless of whether the allowances would be sold or distributed at no cost.

In contrast, CBO believes the creation and subsequent allocation of federal RECs under the legislation's combined efficiency and renewable electricity standard should not be included within the federal budget. While a large and liquid secondary market for RECs would make them cash-like in nature, the supply of credits would be determined by the amount of renewable energy generated, not by the federal government. Unlike a GHG or HFC allowance, the creation of an REC, and thus its value, would stem from actions undertaken by private entities. The federal government would be unable to achieve the same policy effect (in this case, a target percentage of energy generation from renewable sources) through the sale of RECs since the quantity of RECs needed to meet this target would be a function of business decisions about how much electricity to produce.

Domestic and international offset credits authorized to be used within the GHG cap-and-trade program have similar characteristics similar to those of RECs. Once created, such credits would have value because the firms that are covered by the cap could use them in lieu of allowances for a share of their compliance obligation. Unlike allowances, however, the government would not determine the supply of offsets; that supply would depend on the actions of private entities. Therefore, CBO believes offset credits should not be accounted for in the federal budget.

Revenues resulting from cap-and-trade programs

The impact of H.R. 2454 on net federal revenues would largely be determined by the value of allowances created by the bill less the resulting reductions in receipts from income and payroll taxes. Penalties for noncompliance and fees collected to administer the legislation would add a small amount to total revenues, and tax credits available to low-income individuals would reduce federal revenues. The following sections discuss how CBO estimated the allowance prices for GHG and HFC cap-and-trade programs and detail other revenue impacts of the bill.

Estimating the Prices for Emission Allowances. CBO estimates that the price of GHG allowances would rise from about $15 per $mtCO_2e$ of emissions in 2011 to about $26 per $mtCO_2e$ in 2019.

Table 3 provides CBO's estimate of annual allowance prices for the separate GHG and HFC cap-and-trade programs that would be created by the bill.

TABLE 3.—CBO ESTIMATES OF ALLOWANCE PRICES UNDER H.R. 2454

	By fiscal year, in dollars—								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimated GHG Allowance Price	15	16	17	18	19	21	22	24	26
Estimated HFC Allowance Price [1]	n.a.	2	3	4	10	12	13	19	20

Note: n.a. = not applicable.
[1] Prices provided are the weighted average of the estimated auction prices and fixed-price sales.

To estimate the marginal cost of reducing GHG emissions—which ultimately would determine the price of allowances—CBO took several steps:

- First, CBO constructed a base case that includes projections of future GHG emissions in the absence of any federal policies to control them, as well as projections of future prices of fossil fuels, electricity, and other products and services closely associated with such emissions;
- Next, we developed estimates of how firms and households would respond to increases in prices for fossil fuels and other sources of GHG emissions;
- Finally, CBO assessed the impact of other features of the legislation that would influence the market price of allowances. Such other provisions include regulations that would influence GHG emissions and electricity consumption, subsidies for various GHG emission-reducing activities, opportunities for firms to bank allowances in one year and use them in another, and the availability of domestic or international offsets.[2]

CBO began with its estimate of the emissions that would occur in the absence of the bill and lowered that baseline to reflect the extent to which the bill would require particular methods of reducing emissions (such as using renewable energy sources or increasing energy efficiency) to be used to a greater extent than they otherwise would have under the cap-and-trade program. We then estimate the price of allowances that would be necessary to generate the remaining reduction in emissions necessary to meet the cap. This estimate uses a "middle of the road" estimate of price responsiveness, which indicates how much firms and households would reduce their emissions for any given allowance price (and its implied effect of fossil fuel energy prices). In making that calculation CBO simultaneously estimated the extent to which firms would comply by purchasing domestic or international offsets (in lieu of purchasing allowances or reducing their emissions). Our estimate of the allowance price accounts for the fact that firms might find it profitable to exceed their emission reductions in the early years of the policy and bank their excess allowances to use in later years. To do so, we estimate emissions reductions and allowance prices during the full duration of the program through 2050.

Base Case Emission Projections. For its base case of GHG emissions, CBO relied primarily on projections of energy use, fossil fuel

[2] For a more detailed discussion of the methods CBO used to estimate the price for carbon allowances for previous legislation, see *How CBO Estimates the Costs of Reducing Greenhouse-Gas Emissions,* CBO Background Paper (April 2009).

prices, and GHG emissions from the April 2009 update of the *Annual Energy Outlook 2009* (AEO 2009) published by the Energy Information Administration (EIA). EIA's inventory of emissions is based on a slightly different methodology than used by EPA, whose inventory is considered the official U.S. estimate for purposes of international negotiations and agreements.[3] CBO adjusted the EIA data to align with EPA estimates for the most recent year where actual data is published, while retaining EIA's projected growth rates. CBO assumes that emissions per dollar of the nation's gross domestic product (GDP) will grow (or decline) at the same rate beyond 2030 as they are projected to grow in the preceding decade.[4]

Response by Firms and Households. A key factor in determining the price of an allowance is how quickly and cheaply firms and households can decrease CO_2 emissions by reducing their use of fossil fuels (either directly or indirectly via the goods and services that they consume). The easier it is for firms and households to cut their emissions, the lower the allowance price would need to be to reach a given cap. Available economic models differ considerably in their estimates of how much emissions would decrease for a given allowance price (and its implied effect on fossil fuel prices) because they make different assumptions about the long-run ability of businesses to substitute low-carbon fuels and more efficient technology for high-carbon fuels; the long-run sensitivity of energy usage to higher energy prices; and the speed at which those responses unfold. CBO generated a "middle of the road" response to allowance prices by examining available peer-reviewed models and calculating an average response, measured across multiple models and across different types of end users (households, electric utilities, and manufacturers, for example).[5]

Using those models, CBO concludes that the response to price increases (that is the decrease in emissions that would result from any given allowance price) would rise substantially over time as firms and households replace existing vehicles, equipment, structures, and electricity-generating capacity with newer items that use less energy or emit smaller quantities of carbon emissions.[6] CBO's approach provides an estimate of the quantity of emission reductions that would occur at various allowance prices but does not specify how they would occur. That is, it does not provide detail about the timing or magnitude of the adoption of specific technologies, such as nuclear power or CCS, or the quantity of reductions in specific parts of the economy, such as the transportation sector.

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[3] See U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2007* (EPA 430–R–09–004, April 2009). CBO also used information provided by EPA to project the consumption of HFCs.

[4] EIA reports projections of GHG emissions in the AEO 2009 only through 2030.

[5] The models analyzed include the EIA's National Energy Modeling System (NEMS), the Emissions Prediction and Policy Analysis (EPPA) model used by climate researchers at the Massachusetts Institute of Technology, the Applied Dynamic Analysis of the Global Economy (ADAGE) model developed at RTI International and used by EPA, the Second Generation Model (SGM) and MiniCAM models developed and used by the Joint Global Change Research Institute, the Model for Evaluating the Regional and Global Effects of GHG Reduction Policies (MERGE) developed by Stanford University and EPRI, and the Multi-region National-North American Electricity and Environment (MRN–NEEM) model developed and used by CRA International.

[6] For a more detailed discussion of the techniques CBO used to develop this assessment, see Mark Lasky, *The Economic Costs of Reducing Emissions of Greenhouse Gases: A Survey of Economic Models,* CBO Technical Paper (May 2003). See also *How CBO Estimates the Costs of Reducing Greenhouse-Gas Emissions,* CBO Background Paper (April 2009).

CBO estimates that, in 2015, a price on emissions of CO_2 that raised the average price of end-use energy produced from fossil fuels by 10 percent would induce about a 5 percent reduction in such emissions. By 2025, a similar increase in price would result in a 9 percent reduction in emissions, with the response continuing to increase over time at a gradually decreasing rate.

Response to Opportunities for Banking of Emission Allowances. If covered entities were required to use all of their emission allowances in the year for which they were originally designated, the price of allowances would rise at a rate that was dictated by the speed at which the cap became more stringent (relative to the growth of emissions in the absence of the policy). Given the rate at which the cap on emissions would become more stringent over time under H.R. 2454, the inflation-adjusted price of allowances would rise at a rate that is significantly greater than CBO's estimate of the rate of return that firms might obtain on alternative investments, which CBO assumed to be the after-tax long-run inflation-adjusted rate of return to capital in the U.S. nonfinancial corporate sector (5.6 percent) that CBO is currently using to project the long-run budget outlook.

If firms were allowed to bank unlimited amounts of allowances, as they are under H.R. 2454, then profit-maximizing behavior by firms would cause the price of an allowance to increase at the same rate as the return that firms might receive on alternative investments. Specifically, firms would have an incentive to exceed their emission reduction requirements in the initial years of the program (when the cost of meeting the annual caps would be relatively low) and to bank their excess allowances to use in future years when the cost of meeting the cap would be much higher. Because banking would increase the demand for allowances in the early years (pushing up the allowance price) and increase the supply of allowances in later years (pushing down the allowance price), it would reduce the rate of increase in the price of allowances. Firms would continue to bank allowances up to the point where the rate of increase in the price of allowances was 5.6 percent, the rate of return that they might receive by making alternative investments.

In the early years of the cap-and-trade program, the banking provision included in the bill would have a significant impact on the amount of emissions reductions, and thus on the allowance price. CBO estimates that by 2019, covered entities would undertake significantly more mitigation than necessary to meet their annual emission caps, banking about 2 billion $mtCO_2e$ of allowances and raising the allowance price by 13 percent, compared with a policy that prohibited banking.

Response to Offset Credits. H.R. 2454 would allow covered entities to substitute offset credits in lieu of up to two billion GHG allowances each year. CBO expects covered entities would take advantage of this provision when costs are less than other methods of compliance. CBO finds that this provision would have a significant effect on allowance prices. As discussed below, by reducing the cost of complying with the cap, offsets are likely to lower the price of allowances by a substantial amount.

Under the bill, domestic offset credits could be used in lieu of up to one billion allowances per year. Based on EPA data on the available supply of domestic offsets at different prices, CBO estimates

that covered entities would use domestic offsets to substitute for about 230 million allowances in 2012 and about 300 million allowances in 2020.

Covered entities may use international offsets in lieu of either one billion allowances, or depending on whether or not domestic offsets are used up to their full potential, up to 1.5 billion allowances in a given year. In no case could domestic and international offsets substitute for more than two billion allowances.

To calculate the supply of offsets from international sources, CBO used information from EPA and made adjustments based on provisions in the legislation, assumptions about demand from other countries, and an estimate of the transactions costs associated with creating and verifying offsets. Based on information from the Department of State, EPA, and outside experts, CBO expects that the agreements necessary to generate offsets with certain countries would take significant time to negotiate. Over the period covered by this bill, the number of agreements and the scope of their coverage is assumed to increase. CBO also assumed that other developed countries (for example, those in the European Union) would seek offsets for their own emissions reduction programs, thereby reducing the supply available to U.S. entities.

CBO estimates that covered entities would use international offsets in lieu of about 190 million allowances in 2012 and in lieu of about 425 million allowances in 2020. Together, the provisions allowing the use of domestic and international offsets would decrease the price of GHG allowances by $35 (69 percent) in 2012.

Response to Emissions Allowances from Other Markets. H.R. 2454 also would allow covered entities to submit an unlimited number of emissions allowances obtained from 16 other cap-and-trade markets of "comparable stringency" in lieu of GHG allowances issued by EPA. For this estimate, CBO assumed that a market of "comparable stringency" would essentially be equivalent to a cap-and-trade market where allowances sell for a comparable price. Therefore, this provision would have no effect on the U.S. GHG allowance price.

Sensitivity of the GHG Allowance Price Estimates to Changes in Assumptions. In cap-and-trade systems such as the one established by this legislation, the most important assumptions affecting the price of allowances involve:

- Base-case projections of GHG emissions and energy prices;
- The responsiveness of households and firms to changes in the prices of goods and services associated with emissions;
- The discount rate that allowance holders apply to decisions about whether to bank allowances and how many to bank;
- The availability of offsets from domestic and international sources and the extent to which they are allowed to meet compliance obligations; and
- Other regulatory programs included as part of an overall emissions-reduction policy.

CBO examined each of those parameters to evaluate how sensitive the estimated allowance prices might be to alternative assumptions about how the program might operate into the future. Changes in the allowance prices under those alternative assumptions are made by holding the other parameters constant. (Note: it is not possible to determine the effect of changing multiple param-

eters simultaneously by simply adding together the independent effects of changing one parameter assumption while keeping other parameters constant.)

Base-Case Projections. Energy-related emissions from the U.S. economy are projected in the AEO 2009 to be almost 3 percent lower in 2012 and 7 percent lower in 2030 compared with those made by EIA last year.[7] All else constant, a lower baseline for emissions from a covered sector will result in lower allowance prices.

Responsiveness. CBO's estimates of the responsiveness of firms and households to changes in energy prices strongly influences its estimates. If that responsiveness were 10 percent stronger (or weaker), on average, allowance prices would be roughly 8 percent lower or 9 percent higher.[8]

Discount Rate. The discount rate that firms would use when deciding whether or not to bank allowances is important in determining the allowance price because it affects the supply and demand for allowances in a given year. A higher discount rate would suggest that a firm would be more willing to put off expenses in the near term and pay them in the future, causing firms to bank fewer allowances. Assuming a lower discount rate of 5 percent (the rate used by EPA), firms would choose to lower emissions more in the near term (that is, bank more allowances) and less in future years. Use of a 5 percent rate would increase CBO's estimate of initial year prices by 13 percent and decrease projected prices in 2050 by 9 percent.

Availability of Offsets. Allowance prices would be lower if firms were allowed to use more offset credits to meet the bill's compliance obligations and if those offsets were cheaper than the costs of lowering emissions. Under the bill, the use of international offsets lowers the allowance price by about 70 percent. Doubling the extent to which international offsets could be used in lieu of allowances in each year would decrease the allowance price by about 30 percent more.

Regulatory Programs. Other programs or standards that influence GHG emissions would affect the price of allowances by affecting the magnitude of the emission reductions necessary to meet the cap. For example, a regulatory program that requires increasing amounts of electricity generation to come from renewable energy sources (for example, wind, solar, and biomass) could lower emissions from the electricity sector that would be subject to the cap-and-trade program. Allowances prices could therefore be lower than they otherwise might have been in the absence of that regulation.

The effect that such programs and standards would have on emissions will vary with the base price of allowances and the stringency of those standards. If allowance prices are high, consumers and firms would have more incentives to undertake actions to lower emissions. In that case, it is less likely that a separate regulatory program would affect the allowance price because the behavior that the regulatory program is intended to achieve would occur

[7] See discussion of the differences in the *EIA Annual Energy Outlook* (2009), available online at: *http://www.eia.doe.gov/oiaf/aeo/forecast.html.*

[8] EPA's analysis of S. 2191 showed that initial allowance prices were 80 percent higher when nuclear, biomass, and CCS technologies were constrained. Such an effect would be equivalent to lowering the projected sensitivity of the U.S. economy by more than 50 percent.

in any event as a result of the relatively high allowance price. Conversely, when allowance prices are relatively low, and/or regulatory standards are relatively stringent, those standards would be more likely to motivate additional emission reductions through the use of the regulated technology (by using renewable energy, for example) beyond those that would result under the cap. In that case, the standards would reduce the emissions reductions that must be achieved to meet the cap and the price of allowances would be lower. Using one example from the legislation, CBO finds that distributing allowances to those facilities that invest in CCS technology, the price of allowances is reduced by 9 percent. In other cases, such as the RES, CBO estimates that the response to the GHG cap-and-trade program would result in enough renewable electricity generation on a national level to satisfy the new RES.

Estimating the Price of Consumption Allowances for HFCs. CBO estimates that the average price of consumption allowances for HFCs would be in the vicinity of $2 beginning in 2012 and would rise to approximately $20 by 2019. The cap would reduce HFC emissions by about 50 percent by 2020 from about 500 million $mtCO_2e$ to about 250 million $mtCO_2e$.

For this estimate, CBO constructed a base-case projection of HFC consumption through 2025 similar to a base case produced by EPA. After consulting with industry sources, CBO concluded that the growth in HFC consumption after 2025 would be equal to the population growth rate in the United States, an assumption similar to that made by the International Panel on Climate Change. Using engineering cost data for HFC alternatives provided by EPA, CBO estimated the supply of HFC reductions as a function of price and year. From this data, CBO concluded that the ability to replace HFCs with lower-cost chemical alternatives would increase over time.

As prices for HFC allowances increase, firms would find it more profitable to recycle those chemicals and develop alternatives to these products. To the extent those changes occur, the price of HFC allowances would be different than would otherwise occur.

Net Revenue Calculation. CBO estimates that gross receipts to the federal government from the auction and free allocation of allowances under the bill would total $298 billion over the 2010–2014 period and $973 billion over the 2010–2019 period. This estimate is based on the projected prices of allowances for both the GHG and HFC cap-and-trade programs.

However, the cost of purchasing allowances, whether from the government or from other entities that would receive allowances under the bill, would become an additional business expense for companies that would have to comply with that cap on emissions. Those additional expenses would result in a decrease in taxable income, resulting in a loss of government revenue from income and payroll taxes referred to as a "revenue offset". The amount of this revenue offset would be equal to 25 percent—an approximate marginal tax rate on overall economic activity—of the gross receipts from the auction and free allocation of allowances.[9]

[9] Two previous letters on this subject can be found on CBO's website at: http://www.cbo.gov/ftpdocs/102xx/doc10236/BartonCapnTradeLtr.pdf and http://www.cbo.gov/ftpdocs/102xx/doc10232/5-15-WaxmanLetter.pdf.

Depending on the manner in which the proceeds or allowances are used by the government or conveyed to private entities, this reduction in taxable income (the revenue offset) might be accompanied by a matching increase in taxable income elsewhere in the economy. In such cases, CBO views the distribution of allowances or allowance proceeds as offsetting the revenue offset—that is, compensating for the initial loss of tax revenues associated with the acquisition of the allowances. In those cases, the distribution and use of the allowances or the auction proceeds would be budget neutral. For this estimate, CBO applied this offsetting offset to some of the revenues arising from the distribution of allowances, depending on who would receive those allowances (or auction proceeds) and what they would be used for.

In general, allowances provided under section 321 to businesses (merchant coal generators, generators with long-term power purchase agreements, petroleum refiners), and some of the allowances provided to natural gas distributors would fit in the category of transactions that would be budget neutral because they would generate taxable income. In contrast, allowances provided to nonbusiness entities—such as states to support specific activities, or to other countries to support efforts to reduce greenhouse gases—would not be budget neutral because they would not generate taxable income.

On balance, CBO estimates that the auction of GHG and HFC allowances and distribution of GHG allowances at no cost would generate revenues, net of income and payroll tax offsets, of about $254 billion over the 2010–2014 period and $858 billion over the next 10 years (see Table 4).

OTHER REVENUES

Refundable Low-Income Energy Tax Credit. H.R. 2454 would create a refundable energy tax credit, aimed at offsetting the impact of higher energy prices on low-income families. The credit would be based on the average loss of purchasing power for the poorest fifth of people caused by higher prices for energy and other goods under the bill. The credit would vary with family size, based on the average spending of different size families at the bottom of the income scale. The credit amount would be based on the share of total expenditures made by those families, the GHG intensity of that spending, the amount of other relief provided under the bill, and how much of their reduced purchasing power would be automatically offset with federal cost-of-living adjustments. In 2012, CBO estimates that the credit would range from $161 for a single person to $359 for a five-person household. By 2019, those credit amounts would rise by roughly 75 percent.

Only taxpayers with income below certain levels would receive the credit. The level at which a family would become ineligible for the credit depends on the family structure. In 2012, CBO estimates that single people with no children would be ineligible if their income exceeded $23,000, while families with at least two children would be ineligible if their income exceeded $42,000. The credit would be refundable, meaning that taxpayers would not need to owe any tax in order to receive the credit. Taxpayers who would participate in the energy rebate program for low-income consumers would not be eligible for that credit.

The Joint Committee on Taxation estimates that the credit would cost $83 billion over the 2009–2019 period. Of that amount, about $22 billion would be recorded in the budget as a reduction in tax receipts and about $61 billion as an increase in direct spending in the amount in excess of taxes owed.

In addition, people who participate in other federal benefits programs could receive a cash rebate under another provision (see Direct Spending section below).

Increased Use of Production Tax Credits. By increasing electricity production through renewable sources, H.R. 2454 would result in businesses claiming increased business tax credits for the renewable electricity production credit (section 45 of the Internal Revenue Code) and the energy credit which applies primarily to investments in solar and geothermal energy production (section 48 of the Internal Revenue Code). JCT estimates that increased use of those credits would reduce revenues by $1.1 billion over the 2010–2019 period. This estimate reflects one aspect of the revenue consequences of a shift in economic activity away from use of fossil fuels.

Carbon Storage Research Corporation. Section 114 would authorize utilities that distribute fossil fuels to establish, by a referendum involving members of the electricity distribution industry, a Carbon Storage Research Corporation. The corporation would levy annual assessments on distribution utilities based on the volume of certain electricity deliveries to retail consumers. Assessments would amount to at least $1 billion, but not more than $1.1 billion each year. While formation of the corporation would be voluntary, once it was created, assessments would be compulsory, enforced by the federal government's sovereign authority. As such, CBO believes the corporation should be considered governmental in nature, and all of its activities should be included in the federal budget.

For this estimate, CBO assumes that the corporation would be created and would collect assessments totaling $1 billion in 2010 and $1.1 billion each year thereafter through 2019. Those amounts should be recorded in the budget as revenues, and subsequent expenditures should be considered direct spending.

Additionally, the cost of those assessments would become an additional business expense for utilities, resulting in a loss of other federal tax revenue (primarily income and payroll taxes). The amount of this revenue loss would be equal to about 25 percent of the assessments. However, half of the funds collected by the corporation would go back to electric utilities in the form of grants to subsidize the operations of existing electricity generation units that use integrated CCS or conversion. Those grants would generate new taxable income which would increase federal revenues. Consequently, the net loss in tax revenue would equal about one-eighth of the income from the assessments, resulting in an overall increase in revenues from this provision of $4.7 billion over the 2010–2014 period and $9.5 billion over the next 10 years.

Commodity Futures Trading Commission. H.R. 2454 would authorize the Commodity Futures Trading Commission (CFTC) to charge and collect fees on transactions executed on certain exchanges. The fee would be calculated to recover the annual cost of the commission's supervision and regulation of futures markets

(the cost of CFTC's enforcement activities would not be included in this amount). Fees would be deposited into a special account and would be authorized to be appropriated to fund the commission's activities. CBO estimates that enacting these provisions would increase revenues by about $400 million over the 2010–2014 period, and by about $800 million over the 2010–2019 period, net of income and payroll tax losses.

Alternative Compliance Payments for the Renewable Electricity Standard (RES). Section 101 would establish a new federal standard requiring an increasing percentage of electricity sold by certain retail electricity suppliers to be generated from renewable sources beginning in 2012. Covered suppliers of retail electricity would meet this requirement by submitting a federal renewable energy credit (REC) or by making an alternative compliance payment equal to $25 (in 2009, adjusted for inflation) for each megawatt hour of renewable electricity necessary to comply with the standard. Under the bill, alternative compliance payments would be paid directly to states; nevertheless, because they would result from an exercise of the federal government's sovereign power to regulate industry, CBO believes that collections and subsequent expenditures of alternative compliance payments should be considered governmental in nature and included in the federal budget.

CBO estimates that the response to the GHG cap-and-trade program would result in the generation of enough renewable electricity, on a national level, to satisfy the federal standard. However, based on information from DOE, CBO expects that some regions of the country—particularly the southeast—would probably not generate sufficient RECs to satisfy the federal standard. Thus, covered electricity suppliers in those areas would have to either purchase RECs generated elsewhere or make alternative compliance payments to the states in which they operate.

CBO expects that, in some cases, covered electricity suppliers would choose to make alternative compliance payments rather than purchase RECs. H.R. 2454 would require states to use any alternative compliance payments received pursuant to the federal RES to promote the development of renewable energy resources. To the extent that electricity suppliers that are subject to the RES would benefit from states' spending of alternative compliance payments, H.R. 2454 might provide an incentive for suppliers to favor those payments over REC purchases as a means of complying with the federal RES.

CBO believes that this incentive would most likely affect the behavior of electricity suppliers in instances where the price of a REC is at or only slightly below the compliance payment. Based on information from DOE about estimated prices of RECs under H.R. 2454, however, CBO expects that most suppliers would use RECs to comply with the federal RES. We estimate that alternative compliance payments would probably not exceed $500 million over the 2012–2019 period. The volume of electricity associated with estimated payments is small—less than one-tenth of one percent of all electricity generation.

In addition, the cost of the alternative compliance payments would become an additional business expense for utilities, thus reducing federal tax revenue. The amount of this revenue offset would be equal to 25 percent of the payments, resulting in an over-

all increase in revenues from this provision of about $100 million over the 2010–2014 period and nearly $400 million over the next 10 years.

Fuel-Efficient Vehicle Vouchers. CBO expects that the issuance of vouchers to individuals who replace existing vehicles with new ones of greater fuel efficiency would result in a slight increase in the overall fuel efficiency of the domestic vehicle fleet. New vehicles purchased as a result of the program would generally be more fuel efficient than ones that would otherwise be purchased as replacements. This increase in fuel efficiency would cause a slight decline in gasoline consumption, thereby reducing federal revenues generated by excise taxes on motor fuels. CBO estimates that this provision of the legislation would reduce federal revenues by $16 million over the 2010–2014 period and $28 million over the 2010–2019 period.

Penalties. Under H.R. 2454, civil penalties would be assessed on those owners and operators who fail to meet their compliance obligation on time. The penalty would equal the emissions generated by an entity in excess of the allowances they held multiplied by twice the fair market value of emission allowances in the relevant year. In addition, the covered entities would be required to submit, in the following year or other time period determined by EPA, emission allowances to cover excess emissions from the previous year. The legislation also would establish penalties for those entities that violate any of the rules associated with the regulation of the allowance market. Such penalties could be as high $1 million per day under certain circumstances. This legislation also includes various other penalties, including penalties for nonpayment of allowances and for fraud.

Because many of the penalties could be substantial, CBO expects most firms would comply with the requirements of the bill. However, the number of entities covered by this legislation is large, and thus it is likely that some entities would not comply. Penalties collected on emissions of sulfur dioxide and nitrogen oxides in excess of submitted allowances under EPA's Acid Rain Program, a similar program, are usually small, though there have been two large collections over the past few years totaling about $4 million. Based on that information, CBO estimates that penalty collections under H.R. 2454 would total between $25 million and $50 million dollars annually, beginning in 2012.

Effect on Unemployment Compensation. The bill would create a program to compensate workers who lose their jobs as a result of the bill's provisions. That program would provide cash benefits, job training, and a subsidy for health care costs. Individuals who collect benefits under that program would not be eligible to receive unemployment compensation; consequently, outlays of that program would be reduced. Because such outlays are paid from state employment taxes, CBO estimates that states would reduce their taxes (which are recorded as revenues on the federal budget) accordingly. Over the 2012–2019 period, CBO estimates that the reduction in tax revenues to be less than $100 million.

DIRECT SPENDING

CBO estimates that enacting this legislation would increase direct spending by $821 billion over the 2010–2019 period. Outlays

would primarily stem from spending of auction proceeds and giving GHG allowances to states and other entities free of charge. Also, substantial amounts of auction proceeds would be available for other spending programs that would be subject to appropriation action. A more detailed description of those programs is included under the discussion of spending subject to appropriation.

Worker Assistance. A portion of the revenues from the auction of emission allowances for the GHG cap-and-trade program would fund a program for Climate Change Worker Adjustment Assistance (CCWAA), which would be administered by the Department of Labor (DOL). Under that program, workers who lose their jobs as a result of measures their employers take to comply with provisions of the bill could be certified to receive up to 156 weeks of benefits, including cash benefits equal to 70 percent of their average weekly wage, job training and employment search assistance, and an 80 percent subsidy of the cost of continuing health insurance. Funding for the program would be capped at a specified portion of auction proceeds actually received, which CBO estimates would total $4.3 billion over the 2011–2019 period. Gross outlays for CCWAA would total $4.2 billion over that period, CBO estimates.

Individuals receiving CCWAA would not be eligible to receive unemployment compensation. Thus, CBO estimates outlays for unemployment benefits would drop by about $0.1 billion over the 2011–2012 period. (That drop in outlays would be offset over time by a corresponding reduction in unemployment tax revenues, as discussed in the revenue section of this estimate.)

TABLE 4.—ESTIMATED CHANGES IN REVENUES AND DIRECT SPENDING UNDER H.R. 2454

	By fiscal year, in billions of dollars—											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010–2014	2010–2019
CHANGES IN REVENUES												
Net Revenues Resulting from Cap-and-Trade Programs [a]	0	38.0	58.6	64.8	92.2	105.9	114.4	120.1	128.6	134.9	253.6	857.6
Refundable Low-Income Energy Tax Credit	0	0	−0.6	−2.3	−2.5	−2.9	−3.1	−3.4	−3.5	−3.6	−5.5	−22.0
Increased Production Tax Credit Use	0	0	*	−0.1	−0.1	−0.1	−0.1	−0.2	−0.2	−0.2	−0.2	−1.1
Carbon Storage Research Corporation	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	4.7	9.5
Alternative Compliance Payments for the RES	0	0	*	*	*	*	*	*	0.1	0.1	0.1	0.4
Commodity Futures Trading Commission	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.8
Fuel-Efficient Vehicle Vouchers	*	*	*	*	*	*	*	*	*	*	*	*
Penalties and Other Revenue Changes	0	0	*	*	*	*	*	*	*	*	0.1	0.2
Total Changes in Revenues	0.9	39.1	59.1	63.5	90.6	104.0	112.3	117.6	126.1	132.3	253.2	845.6
CHANGES IN DIRECT SPENDING												
Worker Assistance: [b]												
Estimated Budget Authority	0	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	1.3	4.2
Estimated Outlays	0	0	0.1	0.6	0.5	0.5	0.6	0.6	0.6	0.6	1.3	4.1
Outlays Associated with Emission Allowances Freely Allocated:												
Estimated Budget Authority	0	32.2	46.3	54.4	74.5	86.0	92.7	96.4	102.7	107.5	207.4	692.7
Estimated Outlays	0	32.2	46.3	54.4	74.5	86.0	92.7	96.4	102.7	107.5	207.4	692.7
Refundable Low-Income Energy Tax Credit Payments:												
Estimated Budget Authority	0	0	0	6.1	6.5	8.0	8.4	10.4	10.5	11.2	12.6	61.1
Estimated Outlays	0	0	0	6.1	6.5	8.0	8.4	10.4	10.5	11.2	12.6	61.1
Low-Income Energy Rebates:												
Estimated Budget Authority	0	0	4.1	5.4	6.1	6.4	7.2	7.5	7.8	8.2	15.7	52.8
Estimated Outlays	0	0	4.1	5.4	6.1	6.4	7.2	7.5	7.8	8.2	15.7	52.8
Carbon Storage Research Corporation:												
Estimated Budget Authority	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	5.6	11.4
Estimated Outlays	0.3	0.7	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	4.3	10.1
Spending of Alternative Compliance Payments:												
Estimated Budget Authority	0	0	*	*	*	*	0.1	0.1	0.1	0.1	0.1	0.5
Estimated Outlays	0	0	*	*	*	*	0.1	0.1	0.1	0.1	0.1	0.5
Total Changes in Direct Spending:												
Estimated Budget Authority	1.0	33.4	51.9	67.5	88.7	102.1	110.0	116.1	122.9	128.8	242.6	822.6
Estimated Outlays	0.3	32.9	51.6	67.7	88.8	102.2	110.0	116.1	122.9	128.8	241.3	821.2

TABLE 4.—ESTIMATED CHANGES IN REVENUES AND DIRECT SPENDING UNDER H.R. 2454—Continued

	By fiscal year, in billions of dollars—											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010–2014	2010–2019
Net Change in the Budget Deficit from Changes in Revenues and Direct Spending												
Impact on Deficit:[c]	0.6	6.1	7.5	−4.2	1.8	1.8	2.4	1.5	3.2	3.5	12.0	24.4
Memorandum—Details on Auction Revenues:												
Gross Revenues from Auctioned Allowances	0	9.9	21.5	19.7	30.1	33.7	37.0	39.6	42.9	45.4	81.2	279.9
Net Revenues from Auctioned Allowances	0	7.4	16.2	14.8	22.6	25.3	27.7	29.7	32.2	34.1	60.9	209.9
Gross Revenues from Allowances Freely Allocated	0	32.2	46.3	54.4	74.5	86.0	92.7	96.4	102.7	107.5	207.4	692.7
Net Revenues from Allowances Freely Allocated	0	30.6	42.5	50.1	69.6	80.6	86.7	90.4	96.4	100.8	192.7	647.7

Notes: RES = renewable electricity standard, * = between −$50 million and $50 million.
Numbers may not sum to totals because of rounding.
[a] Revenues are net of income and payroll tax offsets.
[b] Includes $0.1 billion reduction in other unemployment benefits over the 2010–2019 period.
[c] Positive numbers indicate decreases in deficits; negative numbers indicate increases in deficits.

Outlays Associated with Emission Allowances Freely Allocated. CBO estimates that direct spending would increase by about $693 billion over the 2010–2019 period when the government distributes emission allowances free of charge to various recipients. Most of this distribution would begin in 2012. Recipients, such as states, natural gas distributers, and federal agencies, would use the allowances to fund programs to encourage energy efficiency and other types of government initiatives.

Refundable Low-Income Energy Tax Credit Payments. H.R. 2454 would create a refundable energy tax credit for low-income families. (See section on "Other Revenues.") Taxpayers would receive any credit amount in excess of their income tax liability as a direct payment. The JCT estimates that direct spending would increase by $61 billion over the 2010–2019 period.

Low-Income Energy Rebates. The bill would create a new energy rebate, aimed at offsetting the impact of the GHG cap-and-trade program on energy prices for low-income families. The rebate would complement the low-income energy tax credit program, reaching families who may not file tax returns. The rebate amount would be the same as the tax credit amount, equaling the average loss of purchasing power caused by higher prices for energy and other goods for the poorest fifth of people. Like the credit, the rebate would vary with family size. In 2012, CBO estimates the rebate would be $161 for a single person, ranging up to $359 for a five-person household. By 2019, those credit amounts would rise by roughly 75 percent.

Families who participate in the Supplemental Nutrition Assistance Program or the Medicare Part D low-income subsidy would automatically be enrolled in the rebate program. Other families with income below 150 percent of the poverty level could apply for the rebates through their state benefit agencies. Enrolled families would receive one-twelfth of the annual rebate amount each month. Families would not be eligible to receive both the rebate and the tax credit. State benefit agencies would notify both credit recipients and the Internal Revenue Service of the amounts of rebate received each year, and the amount of the tax credit a family receives would be reduced by any rebate they receive.

CBO estimates that this rebate program would increase direct spending by $53 billion over the 2012–2019 period. CBO expects that all families receiving the low-income subsidy or participating in the Supplemental Nutrition Assistance Program would receive the rebate. CBO expects minimal participation from eligible families not enrolled in those programs, as the rebate amounts are not large enough to induce many to participate in a new program. CBO also expects that the coordination mechanism between the state benefit agencies and the Internal Revenue Service would be effective in minimizing the number of families that receive both the tax credit and the rebate.

Carbon Storage Research Corporation. As previously discussed in the section on revenues, H.R. 2454 would authorize a governmental corporation to levy and spend assessments on distribution utilities totaling between $1.0 billion and $1.1 billion a year over the 2010–2019 period. Under the bill, the corporation could invest those assessments in interest-bearing securities, thereby generating additional funding for its activities. Expenditures of

assessments and interest, which would be considered direct spending, would support research and development of technologies related to CCS. Based on historical spending patterns for similar activities, CBO estimates that expenditures by the proposed corporation would total about $300 million in 2010 and $10.1 billion over the 2010–2019 period.

Spending of Alternative Compliance Payments Under the RES. The legislation would require states to use any amounts received from alternative compliance payments under the proposed RES to support the deployment of technologies to generate renewable energy and to implement energy-efficiency programs. Based on historical spending patterns for similar activities, CBO estimates that such spending would total about $500 million over the 2012–2019 period.

SPENDING SUBJECT TO APPROPRIATION

Assuming appropriation of the necessary amounts, CBO estimates that implementing this legislation would increase discretionary spending by $49.9 billion over the 2010–2019 period (see Table 5). Most of that amount would stem from provisions that authorize spending of revenues from the auction of emission and consumption allowances. These funds would be used to support a variety of programs by federal agencies. Additional spending would support:

- Certain credit-related activities of the proposed Clean Energy Deployment Administration;
- Federal loans to manufacturers of certain types of vehicles;
- Federal agencies' costs to administer programs established under the bill;
- A wide array of activities to improve energy efficiency throughout the nation;
- Federal costs to provide vouchers to individuals who purchase or lease certain fuel-efficient vehicles; and
- Programs to promote clean energy technologies.

Table 5.—ESTIMATED SPENDING SUBJECT TO APPROPRIATION UNDER H.R. 2454

	By fiscal year, in billions of dollars—											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010–2014	2010–2019
CHANGES IN SPENDING SUBJECT TO APPROPRIATION												
Spending of Auction Proceeds:												
Estimated Authorization Level	0	0.2	0.9	1.4	1.8	2.9	3.5	4.0	5.1	5.6	4.4	25.5
Estimated Outlays	0	*	0.3	0.8	1.3	2.1	2.9	3.5	4.3	5.1	2.3	20.1
Clean Energy Deployment Administration:												
Estimated Authorization Level	*	*	0.1	0.2	0.4	0.6	1.0	1.5	1.5	1.6	0.8	6.9
Estimated Outlays	*	*	*	0.1	0.1	0.2	0.4	0.6	0.9	1.2	0.3	3.6
DOE Loans to Manufacturers of Advanced Technology Vehicles:												
Estimated Authorization Level	0	7.5	*	*	*	*	*	*	*	*	7.5	7.6
Estimated Outlays	0	0.4	0.8	1.1	1.5	1.5	1.5	0.8	*	*	3.8	7.5
Administrative Costs to Federal Agencies:												
Estimated Authorization Level	0.5	0.5	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	3.3	7.8
Estimate Outlays	0.4	0.5	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	3.1	7.5
Energy-Efficiency Programs:												
Estimated Authorization Level	0.7	0.8	0.8	0.9	1.1	0.8	0.4	0.4	0.4	0.4	4.3	6.7
Estimated Outlays	0.3	0.6	0.7	0.8	0.9	0.9	0.7	0.5	0.5	0.4	3.2	6.2
Vouchers to Purchase or Lease Fuel-Efficient Vehicles:												
Authorization Level	4.0	0	0	0	0	0	0	0	0	0	4.0	4.0
Estimated Outlays	2.6	*	0	0	0	0	0	0	0	0	2.6	2.6
Clean Energy Programs:												
Estimated Authorization Level	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	1.5	2.6
Estimated Outlays	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	1.1	2.4
Total Changes:												
Estimated Authorization Level	5.5	9.3	3.0	3.6	4.4	5.4	6.0	6.9	8.2	8.7	25.8	61.1
Estimated Outlays	3.4	1.6	2.7	3.8	4.9	5.8	6.6	6.5	6.8	7.8	16.4	49.9

Note. DOE = Department of Energy; * = between −$50 million and $50 million.
Numbers may not sum to totals because of rounding.

Spending of Auction Proceeds. Under the legislation, about $25.5 billion in revenues from the auction of emission and consumption allowances over the 2011–2019 period would be deposited into three funds established by the Department of the Treasury. Spending from those funds would require further appropriation action. None of the amounts subject to appropriation would be directly offset by revenues generated under the bill. CBO's estimate of the spending by funds over the 2010–2019 period is as follows:

- $5.3 billion would be credited to the Natural Resources Climate Change Adaptation Fund and used to support adaptation activities, such as activities to assist fish and wildlife in adapting to the impacts of climate change, by various federal agencies, including the Department of the Interior, the Department of Commerce, and EPA;
- $900 million would be credited to the Climate Change Health Protection and Promotion Fund and would primarily support efforts by the Department of Health and Human Services to assist health professionals in preparing for and responding to the impacts of climate change on public health; and
- $19.3 billion would be credited to the Stratospheric Ozone and Climate Protection Fund and would be used to support DOE's best-in-class appliances deployment program, an EPA program to encourage the recovery, recycling, and reclamation of HFCs, and any multilateral agreement related to HFCs that includes the United States.

Assuming appropriation of amounts estimated to be credited to the proposed funds, CBO estimates that discretionary spending of revenues from auctions would total $20.1 billion over the 2010–2019 period. That estimate is based on historical spending patterns in agencies that would administer the new programs funded with auction proceeds.

Clean Energy Deployment Administration. The bill would establish a Clean Energy Deployment Administration (CEDA) within DOE, which would be authorized to provide direct loans, loan guarantees, and letters of credit for clean energy projects. Such assistance would be available for investments in the energy, transportation, manufacturing, commodities, residential, commercial, and financial services sectors.

The budgetary accounting for CEDA's activities would be largely governed by the Federal Credit Reform Act of 1990, which requires appropriations for subsidy costs in advance of commitments for loans and loan guarantees. Under that act, the subsidy cost is the estimated long-term cost to the government of the transactions (excluding administrative expenses), calculated on a present-value basis. Subsidy costs are typically expressed as a percentage of the loan principal (the subsidy rate) multiplied by the amounts being loaned or guaranteed.

The potential budgetary impact of CEDA programs is difficult to predict for several reasons. The amount and timing of any spending would depend on investment decisions made by private firms and nonfederal entities in response to market and other conditions. The subsidy rate for participating projects would vary depending on their particular technological and market risks. Finally, some of the activities eligible for assistance under this bill may also be eli-

gible for federal loan guarantees under existing law, especially those involving advanced energy and automotive technologies.

CBO estimates that implementing this provision would increase discretionary spending by $3.6 billion over the 2010–2019 period, assuming appropriation of the amounts necessary to cover the program's subsidy and administrative costs. According to the Conference Board and other private-sector analysts, approximately $1 trillion could be invested over the 2010–2030 period to achieve cost-effective reductions in carbon emissions in the United States, over half of which could be spent by the energy and transportation sectors. For this estimate, CBO assumes that CEDA would provide direct loans or loan guarantees for about 5 percent of those projected investments or a total volume of about $50 billion through 2019. (Those amounts would be in addition to the tens of billions of dollars authorized to be guaranteed under existing law.) CBO estimates that the subsidy rate for CEDA's portfolio would average 13 percent, which is similar to the credit risk posed by speculative-grade bonds.

Although certain letters of credit and changes to DOE's existing loan guarantee program could affect direct spending, CBO estimates that the net effect of those provisions would be negligible over the 2010–2019 period.

DOE Loans to Manufacturers of Advanced Technology Vehicles. Under the existing Advanced Technology Vehicles Manufacturing (ATVM) loan program, DOE is currently authorized to provide up to $25 billion in direct loans to automobile manufacturers and component suppliers to support capital investments in manufacturing facilities designed to produce vehicles with greater fuel efficiency and reduced emissions. The agency currently has $7.5 billion available to cover the anticipated subsidy cost of such loans.

H.R. 2454 would increase, to $50 billion, the amount of loans DOE is authorized to make under the ATVM loan program. CBO estimates that funding an additional $25 billion in such loans under that program would require appropriations totaling $7.6 billion over the 2010–2019 period. That amount includes $7.5 billion to cover anticipated subsidy costs of loans and $0.1 billion for the agency's administrative costs. Estimated subsidy costs take into account the financial condition of borrowers and reflect factors such as default risk, anticipated recoveries in the case of a default, and statutorily specified terms and conditions of ATVM loans.

Based on information from DOE about the anticipated rate of disbursement for ATVM loans that the agency can support with existing funding as well as historical spending patterns for other federal credit programs, CBO expects that DOE would not approve any new loans pursuant to H.R. 2454 before 2011. Starting in 2011, CBO estimates that expenditures for ATVM loans would occur gradually, over several years, as loans are disbursed. We further estimate that DOE's administrative costs associated with additional loans authorized under the legislation would amount to about $10 million annually over the 2011–2019 period.

Administrative Costs to Federal Agencies. Several federal agencies, including EPA, the Federal Energy Regulatory Commission (FERC), the Department of State, DOE, and others would be responsible for administering programs under H.R. 2454. Major new initiatives—particularly the proposed GHG cap-and-trade pro-

gram and related activities, the proposed energy-efficiency and renewable electricity standard, and rebates for low-income individuals—would significantly expand agencies' workloads. In addition, many other provisions of H.R. 2454 would require federal agencies to undertake a variety of rulemakings, conduct studies and assessments, prepare reports, and carry out other activities related to new programs authorized under the bill. Finally, under the bill certain agencies, particularly EPA and the Department of Labor, would have to establish and administer programs to distribute proceeds from auctions of emissions and consumption allowances to state and local governments, private-sector firms, and certain individuals.

In total, CBO estimates that fully funding federal agencies' administrative costs would require gross appropriations totaling $540 million in 2010 and $8.2 billion over the 2010–2019 period. That estimate is based on historical information on how large regulatory programs have been implemented and on information provided by EPA, FERC, and other agencies with significant administrative responsibilities under the bill. Assuming appropriation of the necessary amounts, we estimate that gross spending by affected agencies would total $430 million in 2010 and $7.9 billion over the next 10 years.

In some cases, agencies would charge fees to offset a portion of their administrative costs. In particular, FERC, which has authority to offset 100 percent of its administrative costs through fees on regulated entities, would levy additional fees sufficient to offset any increased administrative costs incurred under H.R. 2454. Based on information from FERC, CBO estimates that increased user fees to that agency would offset roughly $40 million of annual estimated costs under H.R. 2454. Consistent with current budgetary treatment, such fees would be recorded as offsetting collections, thus reducing the net appropriations that would be necessary to implement the legislation to roughly $7.8 billion over the next 10 years. CBO estimates that net outlays resulting from that amount of funding would total $390 million in 2010 and $7.5 billion over the 2010–2019 period.

Energy-Efficiency Programs. H.R. 2454 would establish new programs and requirements aimed at improving the energy efficiency of major sectors of the economy. Most of those activities would be administered by DOE and EPA. (Those agencies' costs to implement energy-efficiency programs are included in our estimate of funding for administrative costs.) CBO estimates that fully funding programmatic elements of energy efficiency programs under the bill—including a wide array of grants and other forms of assistance to nonfederal entities—would require $6.7 billion over the 2010–2019 period. That amount includes:

- $3.1 billion for activities to increase lighting efficiency;
- $2.1 billion to improve the energy efficiency of federal and nonfederal buildings; and
- $1.5 billion for energy-efficiency programs aimed at industry and certain state and local governments and for other related activities.

Assuming appropriation of the necessary amounts, CBO estimates that implementing energy-efficiency programs under H.R.

2454 would cost about $300 million in 2010 and $6.2 billion over the 2010–2019 period.

Vouchers to Purchase or Lease Fuel-Efficient Vehicles. H.R. 2454 would authorize the appropriation of $4 billion for DOT to operate a one-year program to provide vouchers for the purchase or lease of a new car or truck to individuals who trade in an eligible vehicle for one that is more fuel efficient. The eligible vehicle would have to be subsequently dismantled. The vouchers would range in value from $3,500 to $4,500 depending on the type of vehicle being purchased and the difference in the fuel economy from the eligible vehicle.

Based on information from DOT, CBO estimates that up to 77 million vehicles sold over the 1990–2006 period could fall below the 18-mile-per-gallon threshold specified in the bill. Of those, CBO expects that fewer than 25 million would both still be registered and be worth less than the voucher amounts. The vast majority of those vehicles are trucks. Information from the automotive industry suggests that most owners of those vehicles are not currently in the market for a new vehicle and that a relatively small voucher—the average light-duty truck costs more than $25,000—is unlikely to induce them to purchase or lease new vehicles. Current cash incentives from manufacturers and dealers have not significantly increased car sales. Sales of new vehicles in the United States are projected to total about 10 million in calendar year 2009, down from 16 million in 2007, a portion of which are fleet sales and would not be eligible for the program. In addition, financial constraints in the form of credit availability and additional monthly payments by the consumer would play a role in limiting the use of the vouchers. At the same time, it is likely that most vouchers would be used by individuals with eligible vehicles who are currently in the market for a new vehicle or soon will be.

Further, CBO does not expect a significant number of vouchers to be used on purchases that occurred before the enactment of the bill. As a result of the combination of these factors and the limited time that the program would be available, CBO estimates that about 625,000 vouchers would be used, that it would cost DOT about $55 million to administer the program, and that the program would cost about $2.6 billion in 2010 and the same amount over the 2010–2014 period.

Clean Energy Programs. H.R. 2454 would establish new programs and requirements aimed at promoting clean energy. CBO estimates that fully funding those activities, which would be implemented primarily by DOE, EPA, and the Department of Education, would require appropriations totaling $2.6 billion over the 2010–2019 period. That amount includes:

- $1.5 billion for activities related to modernizing the nation's electricity infrastructure, including $550 million for rebates on purchases of certain appliances;
- $870 million to establish centers to focus on research and development of clean energy technologies;
- $250 million for the Department of Education to award grants to educational agencies, postsecondary institutions, and representatives from the community to develop programs of study focusing on emerging careers and jobs in renewable energy, energy efficiency, and climate-change mitigation; and

- $22 million for other activities.

Assuming appropriation of the necessary amounts, CBO estimates that implementing clean energy programs under H.R. 2454 would cost $92 million in 2010 and $2.4 billion over the 2010–2019 period, with additional spending occurring in later years.

PROVISIONS WITH MAJOR BUDGETARY IMPACTS THAT BEGIN AFTER 2019

No later than 2022, the President would be required to assess the extent to which the distribution of emission allowances has mitigated or addressed carbon leakage. (Carbon leakage is defined in the legislation as any substantial increase in GHG emissions by industrial entities located in other countries if such increase is caused by an incremental cost of production increase in the United States resulting from the implementation of the GHG cap-and-trade program.) Specifically, if the President determines that more than 70 percent of global output for each eligible sector is produced or manufactured in countries that meet certain criteria, such as being a party to an international agreement to which the United States is a party, then the President may implement an International Reserve Allowance Program within two years of that determination. Under such a program, foreign manufacturers and importers would be required to pay for and hold allowances to cover the carbon contained in U.S.-bound products. CBO expects that revenues generated from this program could be significant.

Under this legislation, starting in 2025 proceeds from auctions of allowances would be deposited into the Climate Change Consumer Rebate Fund. The Secretary of the Treasury would provide tax refunds on a per-capita basis to each household in the United States that would collectively equal the amount deposited into that fund.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

CBO has determined that the non-tax provisions of H.R. 2454 contain intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act. Several of those mandates would require utilities, manufacturers, and other entities to reduce greenhouse gas emissions through cap-and-trade programs and performance standards. CBO estimates that the aggregate cost of mandates in the bill would well exceed the annual thresholds established in UMRA for intergovernmental and private-sector mandates (in 2009, $69 million and $139 million respectively, adjusted annually for inflation). In some cases, because of a lack of information about future regulations, CBO has no basis for estimating the costs of the mandates.

MANDATES THAT APPLY TO BOTH PUBLIC AND PRIVATE ENTITIES

Cap-and-Trade Program for Greenhouse Gases. The cap-and-trade program for GHG emissions (excluding HFCs) would require covered facilities to submit one allowance per metric ton of carbon dioxide equivalent emitted beginning in 2012. The compliance costs for covered facilities would be the expenditures made in acquiring allowances, the cost of purchasing offset credits, and the cost of directly reducing their emissions of GHGs. Based on estimates of those costs and accounting for the initial allocation of free

allowances, CBO estimates that the cost of this requirement would amount to tens of billions of dollars annually for private-sector entities and about $1 billion annually for public entities.

Although not available to cover the mandate costs of the cap-and-trade requirements, about $50 billion in allowances would be provided to states over the 2012–2016 period for specific purposes, including programs for improving energy efficiency, implementing regulations, and supporting other climate change programs (see additional discussion under "Other Impacts on State and Local Governments" below).

Reporting Requirements. Public and private entities also would be required to report information on greenhouse gases to a federal registry. Assuming EPA's proposed rule for a federal registry of greenhouse gases is adopted under current law, CBO expects that most public entities and some private entities would already be required to report, and therefore the public sector would incur minimal costs. However, CBO expects that additional private-sector entities would be required to report information to the registry under the bill. Based on information about compliance costs from EPA's impact analysis of the proposed rule, CBO estimates that the reporting requirements could increase costs to private entities by about $50 million per year.

The bill also would impose reporting requirements on public and private entities to assist with implementing the cap-and-trade program. CBO expects that the cost to comply with those mandates would be small.

Carbon Capture and Sequestration Assessments. Section 114 would authorize the Carbon Storage Research Corporation to collect annual assessments on public and private utilities following a referendum by the affected utilities. The funds collected along with an allocation of emission allowances would be used to support the development of technologies related to CCS. The bill also would require state regulatory authorities to indicate whether they support or oppose the creation of the corporation. Assuming that the referendum is approved, all utilities would be required to pay the assessments. The assessments would be based on the amount of electricity delivered to retail customers, and would generate between $1.0 billion and $1.1 billion annually. CBO estimates the annual cost to be between $150 million and $175 million for public utilities and $850 million and $925 million for private utilities. The cost of the requirement to regulatory authorities would be small.

Performance Standards for Coal-fueled Power Plants. Section 116 would establish performance standards for new sources of power from coal power plants. Those requirements would compel owners and operators of new units of electric generation (EGUs) to reduce annual CO_2 emissions and would apply to both public and private power plants. Beginning in 2020 or 2025, at the latest, EGUs would be required to reduce annual emissions of CO_2 by 50 percent or 65 percent, depending on when the EGU received a preconstruction permit. The cost of the mandate would be either the cost of adopting CCS or switching to a different fuel source. Because EGUs would likely use CCS technology, along with other measures, to comply with the cap-and-trade program established in the bill, CBO cannot determine the extent to which EGUs would

adopt additional CCS technology due to the performance standard alone. Consequently, the cost of the mandate is uncertain.

Emission Reduction Standards. Section 331 would direct EPA to publish an inventory of stationary sources that emit greenhouse gases that are not covered by the federal cap-and-trade program. The inventory would include categories of sources responsible for a certain percentage of uncapped emissions. Based on information from EPA, those categories could include landfills, natural gas systems, and small fuel combustion sources. The bill would require EPA to establish performance standards for those categories, which could include standards for work practices as well as technological standards. Section 333 would authorize EPA to propose regulations to reduce emissions of black carbon or to publish a finding that existing regulations adequately control such emissions. Because the costs to comply with the new standards established by sections 331 and 333 would depend on future regulatory action, CBO has no basis for estimating the cost of these mandates.

Limitations on Transactions in Commodities. Subtitle E of Title III would impose several mandates on participants in certain commodities markets. Those mandates would include limits on the number of contracts that can be held (known as "position limits") as well as transaction and reporting requirements, with respect to energy commodities, on public and private entities such as pension funds and swap dealers. The bill would impose other requirements on transactions, including fees for transactions executed on certain exchanges. Because of limited information about the transactions in the affected markets, the position limits that would be established, and the extent to which position limits would result in lower returns, CBO has no basis for estimating the cost of the mandates to public or private-sector entities.

Combined Energy Efficiency and Renewable Electricity Standard. Section 101 would create a renewable portfolio standard for certain electricity suppliers. Covered entities would have to submit credits to certify that a minimum percentage of their base sales came from renewable sources. Approximately 21 public and 105 private utilities would be subject to those requirements. As noted earlier in the discussion of federal effects, CBO anticipates electricity generated from renewable sources on a national level to be greater than the amount that would be required by the standard in the first five years that mandate is in effect. Therefore, CBO expects the costs associated with this mandate to be small in those years.

Other Mandates. The bill contains several mandates that would affect both public and private entities, but CBO estimates that the costs of those mandates would be small:

- Sections 121 and 152 would require state regulatory authorities and nonregulated utilities to consider implementing certain standards relating to electric vehicle infrastructure and the ability of federal agencies to generate electricity and sell it back to utilities;
- Section 144 would require both public and private electric utilities to publish goals for reducing peak demand reduction and to prepare a plan that demonstrates their ability to meet those goals; and

- Section 332 would authorize EPA to establish new requirements governing the repair of air conditioners in motor vehicles.

MANDATES THAT APPLY TO PUBLIC ENTITIES ONLY

The bill would impose some mandates solely on public entities, some of which would be preemptions of state and local authority. CBO estimates that the costs of those intergovernmental mandates would be small:

- Section 216 would require the District of Columbia to purchase certain products and services designated to be water efficient by EPA or DOE.
- Section 224 would direct the Secretary of Energy to revise the list of vehicles available for states to comply with an existing mandate that a certain percentage of fleet purchases be alternative fueled vehicles.

Preemptions of State and Local Authority. In addition to the mandates discussed above, H.R. 2454 contains several preemptions of state and local authority. Because preemptions limit the authority of state and local governments, they are considered intergovernmental mandates under UMRA, but CBO estimates that those preemptions would not impose significant additional costs on state, local, or tribal governments as regulators.

- Section 161 would expand an existing preemption of state laws that set energy standards for appliances to include walk-in coolers and freezers as well as commercial refrigerators, freezers, and ice makers.
- Section 211 would preempt state and local laws governing the energy efficiency of certain outdoor luminaires.
- Section 619 would preempt state laws relating to the production and import of certain hydrofluorocarbons.
- Section 861 would preempt state authority to enforce a cap-and-trade program that covers any capped emissions during the years 2012 through 2017.

OTHER IMPACTS ON STATE AND LOCAL GOVERNMENTS

The bill would provide allowances to states for a number of specific purposes. States would create State Energy and Environment Development (SEED) accounts for implementing building regulations and programs to retrofit buildings. SEED accounts could also be used to provide rebates to low-income individuals for the purchase of energy efficient homes and to fund grants to community development organizations for energy efficiency programs. States could also use SEED allowances for transportation planning, smart grid development, and financial incentives to convert or construct manufacturing facilities and expand renewable energy. Other allowance allocations would be available for natural resource adaptation, infrastructure improvements, and programs to benefit low-income consumers of home heating oil or propane. CBO estimates that the allowances would total about $50 billion through 2016.

In addition, the bill would authorize several grant programs for workforce training, transportation planning, environmental protection, research initiatives, and energy efficiency. Those grant programs would benefit participating state, local, and tribal govern-

ments, and any costs would be incurred voluntarily as a condition of receiving federal assistance.

MANDATES THAT APPLY TO PRIVATE ENTITIES ONLY

Hydrofluorocarbon Restrictions. The cap-and-trade program for HFCs would require any entity that produces or imports HFCs, or imports a product containing HFCs, to hold one consumption allowance or destruction offset credit per metric ton of carbon dioxide equivalent beginning in 2012. The direct cost would be equal to the cost of purchasing allowances and offset credits, and the cost of reducing the use of HFCs. The bill also would impose several other requirements for the use of HFCs including restrictions on HFCs used in refrigeration and labeling and reporting requirements.

Based on the price of a consumption allowances established in the bill, CBO estimates that the cost of this requirement would amount to about $600 million in the first year the mandates are in effect.

Lighting and Appliance Efficiency Standards. The bill would establish new requirements for lighting and appliances. CBO estimates that the aggregate cost of those mandates would exceed the threshold in at least one of the first five years the mandates are in effect. Those requirements include:

- Efficiency standards for outdoor luminaries, portable light fixtures, art work fixtures, incandescent reflector lamps, and certain base lamps;
- Efficiency standards for appliances including commercial hot food holding cabinets, water dispensers, portable electric spas, and commercial furnaces; and
- Inclusion of Smart Grid capability on Energy Guide labels for appliances, if required by the Federal Trade Commission.

Allowances for Carbon-Intensive Goods. The bill would establish two programs to mitigate the costs to manufacturers of carbon-intensive goods. The bill would provide rebates in the form of allowances to those manufacturers and authorize EPA to implement an international reserve allowance program. If implemented, that program would require importers of carbon-intensive goods to purchase and submit international reserve allowances for those goods beginning in 2025. The cost of the mandate would depend on the price of an international reserve allowance and the number of international reserve allowances required to be submitted for those goods.

Motor Vehicle Standards. The bill would authorize the Secretary of Transportation to establish a standard for the manufacture of vehicles capable of using alternative fuels such as ethanol, methanol, and biodiesel. The bill also would direct the EPA to establish emissions standards for new heavy-duty vehicles and engines. Because both standards would depend on future regulatory action, the costs of the mandates are uncertain.

Estimate prepared by: Federal Revenues: Mark Booth, David Weiner, Pamela Greene, Edward Harris, Kevin Perese, and Grant Driessen. Federal Costs: Susanne S. Mehlman and Daniel Hoople (cap-and-trade programs), Megan Carroll (RES, clean energy programs, energy efficiency programs), Kathleen Gramp (CEDA), Christi Hawley Anthony (Department of Labor), Sarah Puro and Matthew Pickford (vouchers for fuel-efficient vehicles), and Susan

Willie (CFTC); Allowance Prices: Robert G. Shackleton Jr., Rob Johansson, Terry Dinan, and Natalie Tawil; Impact on state, local, and tribal governments: Ryan Miller; impact on the private sector: Amy Petz.

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SECTION-BY-SECTION

TITLE I—CLEAN ENERGY

SUBTITLE A—COMBINED EFFICIENCY AND RENEWABLE ELECTRICITY STANDARD

Section 101, Combined Efficiency and Renewable Electricity Standard: Amends the Public Utility Regulatory Policies Act to require retail electric suppliers—defined as utilities that sell more than 4 million megawatt hours (MWh) of electricity to consumers for purposes other than resale—to meet a certain percentage of their load with electricity generated from renewable resources and electricity savings. The combined renewable electricity and electricity savings requirement begins at 6 percent in 2012 and gradually rises to 20 percent in 2020. Up to one quarter of the 20 percent requirement automatically may be met with electricity savings. Upon petition of the governor of any state, the Federal Energy Regulatory Commission is authorized to increase the proportion of the requirement that can be met with electricity savings to up to two fifths for electric suppliers located within that state. This would reduce the renewable requirement for such suppliers to a minimum of 12 percent renewables by 2020, with the remaining 8 percent of the combined target satisfied through electricity savings.

Defines renewable energy resources to include wind, biomass, solar, geothermal, certain hydropower projects, marine and hydrokinetic renewable energy, and biogas and biofuels derived exclusively from eligible biomass. Other qualifying energy resources include landfill gas, wastewater treatment gas, coal mine methane, and qualified waste-to-energy. An electric supplier's requirement is reduced in proportion to any portion of its electricity sales that is generated from certain existing hydroelectric facilities, new nuclear generating units, and fossil-fueled units that capture and geologically sequester greenhouse gas emissions.

Requires retail electric suppliers to submit Federal renewable electricity credits and electricity savings each year equal to the combined target for that year times the supplier's retail sales. One renewable electricity credit is given for each MWh of electricity produced from a renewable or other qualifying energy resource. To encourage greater deployment of distributed generation, like small wind and rooftop solar, these projects meeting certain criteria are eligible for three credits for each MWh produced. Retail electric suppliers may submit, in lieu of a renewable electricity credits and demonstrated electricity savings, an alternative compliance payment equal to $25 per MWh (2.5 cents per kilowatt hour).

Electric suppliers choosing to use efficiency for a portion of their compliance are required to demonstrate achievement of electricity savings relative to business-as-usual projections through efficiency measures, including savings achieved through reductions in end-use electricity consumption attributable to measures or technologies such as equipment or facility upgrades, combined heat and power, energy recycling (waste heat recovery), and fuel cells. Electric suppliers may meet the efficiency standards either by achieving electricity savings directly or by using bilateral contracts to acquire savings achieved within the same state by other suppliers or distribution companies, states, or third-party efficiency providers.

Section 102, Clarifying State Authority to Adopt Renewable Energy Incentives: Provides that, notwithstanding any provision to the contrary in the Public Utility and Regulatory Policies Act of 1978 (PURPA), any State may establish rates to be paid by state-regulated utilities intended to provide incentives for development of renewable energy. In the past, some have interpreted PURPA to bar such incentive rates to the extent they exceed the "avoided cost" of power a utility could generate or procure from any other source, denying States the ability to account for the additional benefits of renewable energy.

SUBTITLE B—CARBON CAPTURE AND SEQUESTRATION

Section 111, National Strategy: Requires the EPA Administrator, in consultation with the heads of other relevant federal agencies, to submit to Congress a report setting forth a unified and comprehensive strategy to address the key legal and regulatory barriers to the commercial-scale deployment of carbon capture and sequestration.

Section 112, Regulations for Geologic Sequestration Sites: Amends the Clean Air Act to require the Administrator to establish a coordinated approach to the certification and permitting of sites where geologic sequestration of carbon dioxide will occur. Requires the Administrator to promulgate regulations to minimize the risk of escape to the atmosphere of carbon dioxide injected for geologic sequestration and details the requirements of such regulations. Such regulations will apply in tandem with regulations promulgated under the Safe Drinking Water Act. Together, these regulations will provide a comprehensive, multi-media regulatory framework for geologic sequestration activities.

Section 112 also amends the Safe Drinking Water Act to establish a deadline for promulgation of regulations for carbon dioxide geologic sequestration wells and to clarify financial responsibility requirements to be established under such regulations.

Injection of carbon dioxide for geologic sequestration can take place either solely for the purpose of storing carbon dioxide, or for the dual purposes of storing carbon dioxide and conducting enhanced hydrocarbon recovery activities. For example, carbon dioxide can be injected for permanent storage in a saline aquifer, or it can be injected as part of enhanced oil recovery operations and then be permanently stored in a depleted oil field. Regulations promulgated under Section 112, and under the Safe Drinking Water Act as amended, should apply to all instances where carbon dioxide is injected for geologic sequestration, regardless of whether or not

the injection also serves the purposes of enhancing hydrocarbon recovery activities.

Section 113, Studies and Reports: Section 113(a) requires the Administrator to establish a multi-stakeholder task force to conduct a study of the legal framework for geologic sequestration sites. Section 113(b) directs the Administrator to conduct a study that examines how the multiple environmental statutes that EPA administers, including but not limited to the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act, would apply to geologic sequestration activities.

Section 114, Carbon Capture and Sequestration Demonstration and Early Deployment Program: Establishes a program for the demonstration and early deployment of carbon capture and sequestration (CCS) technologies. Authorizes fossil-based electricity distribution utilities to hold a referendum on the establishment of a Carbon Storage Research Corporation. If approved by entities representing two-thirds of the nation's fossil fuel-based delivered electricity, the Corporation would be established and would be authorized to collect assessments on distribution utilities for all fossil fuel-based electricity delivered directly to retail consumers. The Corporation would be operated as a division or affiliate of the Electric Power Research Institute and would assess fees totaling approximately $1 billion annually for ten years, to be used by the Corporation to fund the large-scale demonstration of CCS technologies in order to accelerate the commercial availability of the technologies.

Section 115, Commercial Deployment of Carbon Capture and Sequestration Technologies: Amends the Clean Air Act to direct the EPA Administrator to establish an incentive program to distribute allowances to support the commercial deployment of CCS technologies in both electric power generation and industrial applications. Establishes eligibility requirements for facilities to receive allowances based on the number of tons of carbon dioxide sequestered. The allowance disbursement program is structured to provide greater incentives for facilities to deploy CCS technologies early in the program and for facilities to capture and sequester larger amounts of carbon dioxide.

Section 116, Performance Standards for Coal-Fueled Power Plants: Amends the Clean Air Act to establish performance standards for new coal-fired power plants permitted in 2009 or thereafter. Describes eligibility criteria, applicable emission standards, and the schedule upon which such standards must be met. Plants permitted in 2020 or thereafter are required to meet specified standards upon commencement of operations. Plants permitted from 2009–2020 are required to meet the specified standard within four years after certain technology deployment criteria are met but no later than 2025.

SUBTITLE C—CLEAN TRANSPORTATION

Section 121, Electric Vehicle Infrastructure: Amends the Public Utility Regulatory Policies Act to require utilities to consider developing plans to support electric vehicle infrastructure and to consider establishing protocols for integration with smart grid systems.

Section 122, Large-Scale Vehicle Electrification Program: Authorizes the Secretary of Energy to provide financial assistance for regional deployment and integration of grid-connected vehicles. Funds may be used for offsetting the incremental cost of purchasing new plug-in electric drive vehicles, deployment of electric charging stations or battery exchange locations, or facilitating the integration of smart grid equipment with plug-in electric drive vehicles. Makes data and results from the regional deployments publicly available.

Section 123, Plug-In Electric Drive Vehicle Manufacturing: Authorizes the Secretary of Energy to provide financial assistance for retooling existing factories for the manufacture of electric vehicles. Authorizes the Secretary of Energy to provide financial assistance to help auto manufacturers purchase batteries for first production vehicles.

Section 124, Investment in Clean Vehicles: Provides for distribution of allowances for plug-in electric drive vehicle manufacturing and deployment and advanced technology vehicles.

Section 125, Advanced Technology Vehicle Manufacturing Incentive Loans: Increases the authorization for loan guarantees under section 136 of the Energy Independence and Security Act of 2007 to $50,000,000,000. Loan guarantees are for reequipping, expanding or establishing manufacturing facilities for advanced technology vehicles or their components, as well as the engineering integration work for such vehicles.

Section 126, Amendment to Renewable Fuels Standard: Amends the definition of "renewable biomass" in section 211 of the Clean Air Act to increase the types of biomass from Federal and non-Federal lands that may be used to make renewable fuel the qualifies for the Renewable Fuels Standard.

Section 127, Open Fuel Standard: Provides the Secretary of Transportation with the authority to require light-duty automobile manufacturers to make vehicles capable of operating on ethanol and methanol-based fuels if the Secretary determines that such requirements are a cost-effective way to achieve the nation's energy independence and environmental objectives.

Section 128, Temporary Vehicle Trade-In Program: Establishes a "Cash for Clunkers" program. Under this program, consumers may trade in their old, gas-guzzling vehicles and receive vouchers worth up to $4,500 to help pay for new, more fuel efficient cars and trucks. The program is authorized for $4 billion for one year, and providing for approximately one million new car or truck purchases.

New passenger cars which achieve at least 22 mpg are eligible for a $3,500 voucher if the performance of the new car is at least 4 mpg higher than the old vehicle and a $4,500 voucher if the performance of the new car is at least 10 mpg higher than the old vehicle. Light duty trucks which achieve at least 18 mpg are eligible for a $3,500 voucher if the performance of the new truck is at least 2 mpg higher than the old vehicle and a $4,500 voucher if the performance of the new truck is at least 5 mpg higher than the old vehicle. Large light duty trucks which achieve at least 15 mpg are eligible for a $3,500 voucher if the performance of the new truck is at least 1 mpg higher than the old vehicle and a $4,500 voucher if the performance of the new truck is at least 2 mpg higher than

the old vehicle. Consumers can also trade in a pre–2002 work truck (defined as a pick-up truck or cargo van weighing from 8,500–10,000 pounds) and receive a voucher worth $3,500 for a new work truck in the same or smaller weight class. Consumers can also "trade down," receiving a $3,500 voucher for trading in an older work truck and purchasing a smaller light-duty truck weighing from 6,000 8,500 pounds. Work truck purchases are capped such that the total funds used to purchase work trucks cannot exceed 7.5 percent of all program funds. The section also includes important consumer protections and protections against program fraud.

Section 129, Diesel Emissions Reduction: Amends the diesel emission reduction grant program established by Subtitle G of title VII of the Energy Policy Act of 2005 (42 U.S.C. 16131 et seq.) by adding American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, Puerto Rico, and the Virgin Islands to the list of States eligible to receive grants, and by adjusting the grant distribution formula accordingly.

Section 130, Loan Guarantees for Projects to Construct Renewable Fuel Pipelines: Amends title XXII of the Energy Policy Act of 2005 to add renewable fuel pipelines to the list of projects and technologies available for loan guarantees under the title.

SUBTITLE D—STATE ENERGY AND ENVIRONMENT DEVELOPMENT ACCOUNTS

Section 131, Establishment of SEED Accounts: Creates a program for each state to establish a State Energy and Environment Development (SEED) Account, to serve as a state-level repository for managing and accounting for all emission allowances designated primarily for renewable energy and energy efficiency purposes.

Section 132, Support of State Renewable Energy and Energy Efficiency Programs: Distributes emission allowances among states for energy efficiency programs and renewable energy deployment and manufacturing support. At least 12.5 percent of the allowances are distributed to local governments for these purposes.

SUBTITLE E—SMART GRID ADVANCEMENT

Section 141, Definitions: Provides relevant definitions.

Section 142, Assessment of Smart Grid Cost Effectiveness in Products: Instructs the Department of Energy and the Environmental Protection Agency to assess products evaluated for Energy Star ratings for benefits of Smart Grid capability.

Section 143, Inclusions of Smart Grid Capability on Appliance ENERGY GUIDE Labels: Instructs Federal Trade Commission to include relevant information on the ENERGY GUIDE labels for those products that include cost-effective Smart Grid capability.

Section 144, Smart Grid Peak Demand Reduction Goals: Requires the Federal Energy Regulatory Commission to coordinate and support a national program to reduce peak electric demand for load-serving electric utilities with peak loads in excess of 250 megawatts.

Section 145, Reauthorization of Energy Efficiency Public Information Program to Include Smart Grid Information: Amends the Energy Policy Act of 2005 to reauthorize the joint Department of Energy and Environmental Protection Agency energy efficiency public

information initiative and expands the initiative to include information on smart grid technologies, practices, and benefits.

Section 146, Inclusion of Smart Grid Features in Appliance Rebate Program: Amends the Energy Policy Act of 2005 to expand energy efficient appliance rebate program to include rebates for efficient appliances with smart grid features and capability. Clarifies program cost-sharing requirements from states.

SUBTITLE F—TRANSMISSION PLANNING

Section 151, Transmission Planning: Amends the Federal Power Act to establish a federal policy on electric grid planning that recognizes the need for new transmission capacity to deploy renewable energy as well as the potential for more efficient operation of the current grid through new technology, demand-side management, and storage capacity. Enhances existing regional transmission planning processes by incorporating this federal policy. Charges the Federal Energy Regulatory Commission with supporting, coordinating, and integrating regional planning efforts.

Section 152, Net Metering for Federal Agencies: Adopts a standard requiring utilities (that sell in excess of 4,000,000 megawatt hours of electricity) to interconnect with and to provide net metering of power deliveries to and receipts from Federal agencies that own, operate or site facilities generating renewable energy. The net metering service is to be offered to such Federal agencies on the basis of non-discriminatory time-sensitive rates.

Section 153, Support for Qualified Advanced Electric Transmission Manufacturing Plants, Qualified High Efficiency Transmission Property, and Qualified Advanced Electric Transmission Property: Amends Title XVII of the Energy Policy Act of 2005 to extend the loan guarantee authority in that Title to cover the development, construction, or integration of high-efficiency or superconductive high-voltage electricity transmission technologies. It also provides such loan guarantees for manufacturing plants producing such technologies. It separately authorizes the Secretary of Energy to make grants for up to 50 percent of the cost of the first project incorporating such technologies, up to a maximum of $100,000,000.

SUBTITLE G—TECHNICAL CORRECTIONS TO ENERGY LAWS

Sections 161–162, Technical Corrections to Energy Independence and Security Act of 2007 and Energy Policy Act of 2005: Makes technical corrections to the Energy Independence and Security Act of 2007 and the Energy Policy Act of 2005.

SUBTITLE H—CLEAN ENERGY INNOVATION CENTERS

Section 171, Clean Energy Innovation Centers: Establishes a program to support development and commercialization of clean energy technologies through eight regional Clean Energy Innovation Centers selected competitively by the Secretary of Energy. Emission allowances to support the establishment of Centers may be awarded to consortiums consisting of research universities, private research entities, industry, and relevant state institutions. Each Center has a unique technology focus to which at least 40 percent of support would be directed.

Section 172, Building Assessment Centers: Requires the Secretary of Energy to create building assessment centers at institutions of higher education to identify opportunities to optimize the energy and environmental performance of buildings. The centers would also promote emerging technologies and research and development to improve buildings' energy and environmental performance. Additionally, the centers would train engineers, architects, and building technicians in energy efficient building design and operation.

Section 173, Centers for Energy and Environmental Knowledge and Outreach: Provides for the establishment of not more than 10 regional centers for energy and environmental knowledge and outreach (CEEKO) to coordinate various energy-related research centers. Operating in coordination with each CEEKO would be one or more industrial research and assessment center, building assessment center, and clean energy application center located in that CEEKO's region. Institutions of higher education would compete to house such centers and would operate internship programs to train students in energy efficiency with Federal funding supporting up to 50 percent of the costs.

SUBTITLE I—NUCLEAR AND ADVANCED TECHNOLOGIES

Section 181–189: Establishes a self-sustaining Clean Energy Deployment Administration (CEDA) within the Department of Energy to promote the domestic development and deployment of clean energy technologies. The Clean Energy Deployment Administration would partner with and support private capital markets to promote access to affordable financing for a range of clean energy technologies that might otherwise be unable to secure financing. CEDA ensures support for a variety of next generation technologies by limiting to 30 percent the amount of financial assistance provided to any one technology. This subtitle also reforms the loan guarantee program established by Title 17 of the Energy Policy Act of 2005.

SUBTITLE J—MISCELLANEOUS

Section 191, Study of Ocean Renewable Energy and Transmission Planning and Siting: Requires the Federal Energy Regulatory Commission, the Department of the Interior, and the National Oceanic and Atmospheric Administration to jointly recommend an approach for the development of regional marine spatial plans for the siting of offshore renewable energy facilities. The Council on Environmental Quality determines whether the recommended approach should be implemented and coordinates the implementation. The Committee intends that the relevant agencies will continue to implement their existing leasing, licensing, and permitting programs while the study is underway and while marine spatial plans are being developed.

Section 192, Clean Technology Business Competition Grant Program: Provides for grants by the Secretary of Energy to nonprofit organizations that conduct competitive programs to identify and support start-up businesses proposing products or services in areas of energy efficiency, renewable energy, air quality, water quality and conservation, transportation, smart grid, green building, and waste management.

Section 193, National Bioenergy Partnership: Requires the Secretary of Energy to establish a National Bioenergy Partnership to support the institutional and physical infrastructure necessary to promote the deployment of sustainable biomass fuels and bioenergy technologies.

Section 194, Office of Consumer Advocacy: Establishes an Office of Consumer Advocacy at the Federal Energy Regulatory Commission to identify and defend the consumer interest in proceedings before the Commission. The office would be headed by a Presidentially-appointed Director, and would represent energy customers through investigations of rates, in complaints, and on appeal of Commission decisions concerning such matters.

TITLE II—ENERGY EFFICIENCY

SUBTITLE A—BUILDING ENERGY EFFICIENCY PROGRAMS

Section 201, Greater Energy Efficiency in Building Codes: Amends the Energy Conservation and Production Act to establish upon enactment and in 2014 (or 2015 for new commercial buildings), respectively, targets for improved energy efficiency building codes to achieve 30 percent and 50 percent reductions in energy use in new buildings. The Secretary of Energy is required to support consensus code-setting organizations in developing and publishing codes meeting those targets; to adopt such codes directly if such organizations fail to do so; to include cool roofs standards; to support state and local adoption of such advanced codes by supporting training and funding for energy efficiency code enforcement; and to provide direct federal enforcement of such codes if states and local governments decline to do so.

Section 202, Building Retrofit Program: Establishes a program under which the Administrator of EPA, in consultation with the Secretary of Energy, supports development of standards and processes for retrofitting existing residential and nonresidential buildings. Authorizes the Secretary of Energy to provide funding to states to conduct cost-effective building retrofits, using local governments, other agencies or entities to carry out the work, through flexible forms of financial assistance up to 50 percent of the costs of retrofits, with funding increasing in proportion to efficiency achievement. Also supports retrofits of historic buildings.

Section 203, Energy Efficient Manufactured Homes: Establishes a program to provide federal rebates of up to $7,500 toward purchases of new Energy Star-rated manufactured homes for low-income families residing in pre-1976 manufactured homes.

Section 204, Building Energy Performance Labeling Program: Establishes an EPA program to develop procedures to label buildings for their energy performance characteristics, using building type and consumption data to be developed by the Energy Information Administration. The program would be implemented by states in a manner suited to increasing public knowledge of building energy performance without hindering real estate transactions.

Section 205, Tree Planting Programs: Authorizes a grant program through the Department of Energy to provide technical and financial assistance to retail power providers that carry out targeted tree planting programs, which reduce energy use and demand peaks in residential and small office settings.

Section 206, Energy Efficiency for Data Center Buildings: Establishes a deadline for the designation by the Secretary of Energy and the Administrator of the Environmental Protection Agency of an information technology organization to consult and coordinate with them on data center energy efficiency, as called for—but without a deadline—in Section 453(c)(1) of the Energy Independence and Security Act of 2007. The deadline would effectively be set at December 19, 2009.

SUBTITLE B—LIGHTING AND APPLIANCE ENERGY EFFICIENCY PROGRAMS

Section 211, Lighting Efficiency Standards: Amends the Energy Policy and Conservation Act to adopt negotiated agreements on technical standards for lighting, including outdoor lighting—street lights, parking lot lights, and parking structure lights—and portable light fixtures such as typical household and commercial plug-in lamps.

Section 212, Other Appliance Efficiency Standards: Amends the Energy Policy and Conservation Act to adopt consensus agreements on technical standards for hot food holding cabinets, bottle-type drinking water dispensers, portable spas (hot tubs), and commercial-grade natural gas furnaces.

Section 213, Appliance Efficiency Determinations and Procedures: Amends the Energy Policy and Conservation Act to improve the Department of Energy process for setting energy-efficiency standards by enabling adoption of consensus testing procedures; requiring the adoption of a new television standard; improving standard-setting cost-effectiveness formula; authorizing the Secretary to obtain product-specific information as needed; authorizing state injunctive enforcement of standards violations; changing the role of appliance efficiency in building codes; and including greenhouse gas emissions, smart grid capability, and availability of more-efficient models among factors affecting efficiency standard ratings.

Section 214, Best-in-Class Appliances Deployment Program: Creates a Department of Energy program to provide rewards to retailers for successful marketing of high-efficiency appliances, designating top performers as "best-in-class," and providing bonuses based on efficiency improvement compared to average product. Provides additional rewards to retailers when best-in-class sale includes return and recycling of inefficient appliances. Creates program to reward manufacturers of new high-efficiency best-in-class models representing significant incremental energy efficiency gain.

The rewards programs for products in this section should not in any way interfere with, discourage, or prevent DOE from adopting minimum standards under the Energy Policy and Conservation Act (42 U.S.C. 6291–6317) that require all products to achieve the same or better efficiency levels as products eligible for awards under this section, where such standards are technologically feasible and economically justified.

Section 215, Water Sense: Authorizes the EPA's WaterSense program, a voluntary labeling program that labels water-efficient high-performance products and services. This will provide the same type of labeling for water efficient products and services as is already done for energy efficient products under the existing Energy Star program.

Section 216, Federal Procurement of Water Efficient Products: Directs federal agencies to make cost-effective water-efficient procurement decisions by purchasing WaterSense or Federal Energy Management Program certified products whenever possible.

Section 217, Water Efficient Product Rebate Programs: Authorizes grants to state governments that establish programs that offer financial incentives to consumers who purchase and install water-efficient products and services such as those labeled by WaterSense.

Section 218, Certified Stoves: This section directs the Environmental Protection Agency (EPA) to establish a program to assist in the replacement of old polluting inefficient wood stoves or pellet stoves with cleaner burning units. It would build on the successes of the EPA's voluntary partnership program, known as the Great American Wood Stove Changeout Program, by providing grants, incentives and loans for people who rely on wood as a source of heat. It would improve air quality in many communities and save money for those who heat their homes with wood. Climate change benefits would occur from reductions in methane and carbon dioxide from improved combustion efficiency.

The Committee intends that, under section 218(a)(3), all "certified stoves" under the program will have been tested by an EPA-accredited laboratory specified by the methods required under the standards of performance for new residential wood heaters under subpart AAA of part 60 of subchapter C of chapter I of title 40, Code of Federal Regulations (or successor regulations).

Section 218(b)(1) is meant to apply to sales of new wood stoves or pellet stoves. Although the standards of performance for new residential wood heaters under subpart AAA of part 60 of subchapter C of chapter I of title 40, Code of Federal Regulations (or successor regulations) already apply to new wood stoves, section 218(b)(1) additionally addresses pellet stoves.

The requirement in section 218(b)(2) that "no wood stove or pellet stove replaced under this program is sold or returned to active service, but that it is instead destroyed and recycled to the maximum extent feasible" should be implemented as part of the Certified Stoves Program. This provision does not require the promulgation of regulations.

Section 219, Energy Star Standards: Adds new requirements to the administration by the Department of Energy and the Environmental Protection Agency of the Energy Star program, including consideration of prototype products, consideration of ways of providing more detailed comparative information among Energy Star products, review of product qualifications on a regular basis, updating qualifications as necessary, and providing proof of performance through testing of products purchased in the market.

SUBTITLE C—TRANSPORTATION EFFICIENCY

Section 221, Emissions Standards: Amends Title VIII of the Clean Air Act to require EPA to establish greenhouse gas emissions standards for new heavy-duty vehicles and engines, for nonroad vehicles and engines, and for aircraft and aircraft engines.

Section 222, Greenhouse Gas Emissions Reductions through Transportation Efficiency: Amends Title VIII of the Clean Air Act to require states to establish goals for greenhouse gas reductions from the transportation sector and requires the submission of

transportation plans to meet those goals by Metropolitan Planning Organizations for areas with populations exceeding 200,000 people. Imposes sanctions on states that fail to submit goals or plans. Authorizes a competitive grant program for development and implementation of plans.

Section 223, SmartWay Transportation Efficiency Program: Amends Title VIII of the Clean Air Act to expand an existing EPA loan and fuel saving technology deployment program, the SmartWay Transport Partnership, to help American truckers upgrade to more fuel efficient and less polluting vehicles.

Section 224, State Vehicle Fleets: Requires the Secretary of Energy to update state fleet rules to be consistent with current law.

SUBTITLE D—INDUSTRIAL ENERGY EFFICIENCY PROGRAMS

Section 241, Industrial Plant Energy Efficiency Standards: Requires the Secretary of Energy to establish standards for industrial energy efficiency and to seek recognition of result by American National Standards Institute.

Section 242, Electric and Thermal Waste Energy Recovery Award Programs: Creates an award program for innovation in increasing the efficiency of thermal electric generation processes, including encouragement for utilities to capture and separately market excess thermal energy.

Section 243, Clarifying Election of Waste Heat Recovery Financial Incentives: Clarifies Section 451 of the Energy Independence and Security Act of 2007 to ensure that those who recover waste energy can elect to receive the incentive grants provided in that section, or tax credits provided for combined heat and power, but not both.

Section 244, Motor Market Assessment and Commercial Awareness Program: Provides for the Secretary of Energy to conduct an assessment of the stock and usage of electric motors and motor-driven equipment from an energy efficiency perspective, and to identify opportunities for upgrading such motors to improve energy efficiency. The Secretary is then instructed to establish a national program targeted at motor end-users to make them aware of the potential energy efficiency gains that could be realized by using more efficient motors and motor control equipment.

Section 245, Motor Efficiency Rebate Program: Establishes a rebate program for replacement of low efficiency industrial-scale electric motors with high-efficiency motors. The rebate amount is $25 per unit of nameplate horsepower of the new motor to the purchaser of that motor, and $5 to the distributor of that motor.

SUBTITLE E—IMPROVEMENTS IN ENERGY SAVINGS PERFORMANCE CONTRACTING

Section 251, Energy Savings Performance Contracts: Amends the National Energy Conservation Policy Act to establish competition requirements for specific energy savings performance contract task orders.

SUBTITLE F—PUBLIC INSTITUTIONS

Section 261, Public Institutions: Amends the Energy Independence and Security Act to include non-profit hospitals and public

health facilities among public institutions eligible for grants and loans and clarifies loan and cost-share conditions.

Section 262, Community Energy Efficiency Flexibility: Amends the Energy Independence and Security Act to remove limits on funds received by communities through the Energy Efficiency and Conservation Block Grant program that can be used to fund revolving loan accounts or through sub-grants for purposes of the program.

Section 263, Small Community Joint Participation: Amends the Energy Independence and Security Act to allow small communities to join with other neighboring small communities in a joint program of sufficient size to be defined as an eligible local government recipient under the Energy Efficiency and Conservation Block Grant program.

Section 264, Low-Income Community Energy Efficiency Program: Authorizes grants to community development organizations to provide financing to improve energy efficiency, develop alternative, renewable, and distributed energy supplies, promote opportunities for low-income residents, and increase energy conservation in low income rural and urban communities.

SUBTITLE G—MISCELLANEOUS

Section 271, Energy Efficient Information and Communications Technologies: Requires the Director of the Office of Management and Budget to collaborate with each Federal agency to create an implementation strategy for the purchase and use of energy efficiency information and communication technologies and practices, establishing performance goals for each agency within 6 months of enactment. Such technologies and practices include advanced metering, efficient data center strategies, updated applications, building systems, and telework.

Section 272, National Energy Efficiency Goals: Declares a national energy efficiency goal of improving overall energy productivity of the United States by 2.5 percent per year beginning in 2012 and continuing through 2030. Instructs the Secretary of Energy, the Administrator of the Environmental Protection Agency, and other relevant federal agencies, with public input, to collaborate on a strategic plan to achieve such a national goal, detailing the regulatory, funding, and policy priorities required to do so, and to update that plan biennially.

Section 273, Affiliated Island Energy Independence Team: Requires the Secretary of Energy to establish a team of technical, policy, and financial experts to address the energy needs of the islands that make up U.S. territories or otherwise affiliated with the U.S. The team will assess the means of reducing these islands' reliance on imported fossil energy, increasing the use of indigenous energy, and increasing the efficiency of energy use on the islands. The team will also develop an energy action plan for each island based on that assessment.

Section 274, Product Carbon Disclosure Program: Creates a new product carbon disclosure program at EPA. Not later than 18 months after the date of enactment, EPA would be required to issue a report to Congress regarding whether a national product carbon disclosure program and labeling program would be effective in reducing greenhouse gas emissions and other related matters.

No later than 36 months after the date of enactment, EPA would be required to establish a national product carbon disclosure program, participation in which shall be voluntary. The national product carbon disclosure program may include a product carbon labeling program.

TITLE III—REDUCING GLOBAL WARMING

Section 301, Short Title: Title III and sections 112, 115, 116, 221, 222, 223, and 401 of the American Clean Energy and Security Act shall be known as the Safe Climate Act.

SUBTITLE A—REDUCING GLOBAL WARMING POLLUTION

Section 311, Section 312, and Section 321, Reducing Global Warming Pollution: Establishes Title VII of the Clean Air Act to provide a declining limit on global warming pollution and to hold industries accountable for reducing global warming pollution pursuant to this limit.

TITLE VII—GLOBAL WARMING POLLUTION REDUCTION PROGRAM

PART A—GLOBAL WARMING POLLUTION REDUCTION GOALS AND TARGETS

Section 701, Findings and Purposes.

Section 702, Economy-wide Reduction Goals: States that the goals of Title VII and Title VIII are to reduce economy-wide global warming pollution to 97 percent of 2005 levels by 2012, 80 percent by 2020, 58 percent by 2030, and 17 percent by 2050.

Section 703, Reduction Targets for Specified Sources: Requires that the regulations issued under section 721 reduce emissions of covered sources to 97 percent of 2005 levels by 2012, 83 percent by 2020, 58 percent by 2030, and 17 percent by 2050.

Section 704, Supplemental Pollution Reductions: Directs the Administrator to achieve additional low-cost reductions in global warming pollution by using a small portion of the emissions allowances to provide incentives to reduce emissions from international deforestation.

Section 705, Review and Program Recommendations: Directs the Administrator to submit a report to Congress every four years. These reports will include: an analysis of the latest science relevant to climate change, an analysis of capacity to monitor and verify greenhouse gas reductions, and an analysis of worldwide and domestic progress in reducing global warming pollution. The reports will identify steps that could be taken to better improve our understanding of climate impacts, improve monitoring and verification, and any additional reductions in emissions that may be needed to avoid dangerous climate change.

Section 706, National Academy Review: Directs the Administrator to commission reports from the National Academy of Sciences every four years. These reports will include: an update on the progress of various clean technologies, and an evaluation of the most recent EPA report submitted under Section 705. The reports will identify steps that could be taken to better improve our understanding of climate impacts, improve monitoring and verification, speed the deployment of clean technology, and any additional re-

ductions in emissions that may be needed to avoid dangerous climate change.

Section 707, Presidential Response and Recommendations: Directs the President to use existing authority to respond to recommendations in the reports. If the National Academy review confirms that further emissions reductions are needed, either domestically or globally, the President must submit a report to Congress recommending steps (including legislation) to achieve those reductions.

PART B—DESIGNATION AND REGISTRATION OF GREENHOUSE GASES

Section 711, Designation of Greenhouse Gases: Establishes a list of greenhouse gases regulated under this title: carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons (HFCs) emitted as a byproduct, perfluorocarbons, and nitrogen trifluoride. Section 711(a)(5) is intended to address hydrofluorocarbons (HFCs) that are emitted from a chemical manufacturing process at an industrial stationary source. HFCs that are sold for an industrial or commercial purpose after their initial production or importation are covered under Title VI. This section includes provisions for listing other anthropogenic gases as greenhouse gases if 1 metric ton of the gas contributes as much as or more to global warming over 100 years than does one metric ton of carbon dioxide. Water vapor cannot be listed as a greenhouse gas under this title because one metric ton of water vapor in the troposphere does not contribute as much as or more to global warming over 100 years than does one metric ton of carbon dioxide.

Section 712, Carbon Dioxide Equivalent Value of Greenhouse Gases: Lists carbon dioxide equivalents for each gas. Requires periodic review of equivalence values by the Administrator.

Section 713, Greenhouse Gas Registry: Directs EPA to establish a federal greenhouse gas registry and comprehensive reporting system for greenhouse gas emissions.

PART C—PROGRAM RULES

Section 721, Emission Allowances: Establishes an annual tonnage limit on greenhouse gas emissions from specified activities. Directs the Administrator to establish allowances equal to the tonnage limit for each year (with one allowance representing the permission to emit one ton of greenhouse gases, measured in tons of carbon dioxide equivalent).

Protecting the environmental integrity and economic value of emission allowances and offsets are fundamental to achieving the American Clean Energy and Security Act's broad economic, energy, national security, environmental, and health objectives and requirements. Consistent with this broad set of objectives and requirements, "the zone of interests to be protected or regulated" by the Act is broad and inclusive. *See, e.g., Ass'n of Data Processing Serv. Orgs., Inc. v. Camp,* 397 U.S. 150, 153–56 (1970). For the Act to serve its purposes, the "zone of interests" under this Act includes, among others, persons with economic interests or competitive injury, such as holders of allowances, holders of offsets, and entities engaged in renewable energy, energy efficiency, or other advanced energy or pollution control technologies.

Section 722, Prohibition of Excess Emissions: Prohibits covered entities from emitting or having attributable greenhouse gases in excess of their allowable emissions level, which is determined by the number of emission allowances and offset credits they hold on the specified date. Electricity generators, refiners and importers of petroleum-based and other specified liquid fuels, fluorinated gas manufacturers, and emitters of nitrogen trifluoride are covered entities starting with emissions in 2012. Specified industrial sources are covered starting with emissions in 2014. Local distribution companies that deliver natural gas are covered starting with emissions in 2016.

Section 722(a) prohibits a covered entity from emitting greenhouse gases, or having attributable greenhouse gas emissions, in excess of its allowable emissions level in a given year. The allowable emissions level is determined by the number of allowances and offset credits a covered entity holds on April 1 (or such other date as set by the Administrator). Section 722(b) sets forth the number of emission allowances that each type of covered entity must hold to demonstrate compliance with title VII of the Clean Air Act.

Section 722(b)(9) provides that where carbon dioxide is used as an input in the production of algae-based fuels, the Administrator shall ensure that emission allowances are held either for the carbon dioxide used to grow the algae or for the carbon dioxide emitted from combustion of the fuel used to produce the algae, but not for both. For example, a power plant could capture its carbon dioxide and transfer it to an entity that uses the carbon dioxide in the production of algae-based transportation fuel. The carbon captured at the power plant would not be emitted at the plant's stack, but would ultimately be emitted to the atmosphere when the fuel is combusted. Under this scenario, and pursuant to section 722(b)(9), EPA could designate either the power plant or the fuel producer as the entity with compliance obligations under Section 722 (to require both would be double-counting).

Section 722(d) allows covered entities to use offset credits in lieu of allowances to demonstrate compliance for a portion of their emissions. Under this section, offset credits may be used to demonstrate compliance for a maximum of two billion tons of emissions from all covered entities combined. A large number of offset credits are projected to be less expensive than allowances for compliance in any given year. To meet the twin goals of ensuring that offset credits are used to demonstrate compliance for no more than two billion tons of emissions and that all covered entities have an equal opportunity to use this cheaper method of compliance, the bill distributes the ability to use offset credits on a pro rata basis among all covered entities. It does so by allowing each covered entity to use offset credits to meet a specified percentage of the allowances it must hold to demonstrate compliance. For each year, the percentage is calculated by dividing two billion by the sum of two billion plus the annual tonnage limit for that year. For example, in 2012, when the annual tonnage limit is 4.627 billion tons, the percentage would be 30.20 percent (2 divided by 6.627 times 100 percent). In that year, a source that emitted 100,000 tons of carbon dioxide equivalent could use offset credits to demonstrate compliance for 30,200 tons of emissions. In 2030, when the annual tonnage limit is 3.533 billion tons, the percentage would be 36.15 percent; and a source that

emitted 100,000 tons of carbon dioxide equivalent could use offset credits to demonstrate compliance for 36,150 tons of emissions. (Although these examples use percentages rounded to the second decimal point, the Administrator has discretion to round to a different decimal point.)

Section 722(d) also sets separate limits on the ability to use domestic and international offsets. System-wide, compliance can be demonstrated for up to one billion tons of emissions using domestic offsets and up to one billion tons of emissions using international offsets. This is accomplished by splitting each covered entity's ability to use offsets equally between international and domestic offsets. Using the example from above, the source in 2030 could offset up to 18,075 tons of its emissions with domestic offsets and up to the same amount with international offsets. However, to address the concern that there may be an insufficient supply of domestic offset credits in any given year to offset 1 billion tons of emissions, section 722(d)(1)(C) allows up to 1.5 billion tons of emissions to be offset with international credits under certain circumstances. This is accomplished by directing the Administrator to change the balance between the percentages of international and domestic offsets that may be used to demonstrate compliance in certain circumstances. If, for example, the Administrator determines that only 0.5 billion tons of domestic offset credits will be available in any given year, the Administrator shall allow a maximum of 1.5 billion tons of emissions to be offset through international projects. Using the 2030 example from above, this would mean that a covered entity with 100,000 tons of emissions could use international offsets to demonstrate compliance for ¾ of 36,150 tons of emissions (or 27,112 tons) and domestic offsets for ¼ (or 9,038 tons). In assessing the availability of domestic offset credits for purposes of determining whether to increase the percentage that can be met using international offsets, the Administrator shall only consider domestic offset credits that are projected to cost no more than the projected allowance price.

Section 722(d) requires that, starting with the 2018 compliance obligation, for every 4 tons of emissions that are offset with international reductions, 5 international offset credits must be used. This 5:4 turn-in ratio provides greenhouse gas reductions and environmental benefits in addition to those provided by the annual tonnage limits. Thus, using the 2030 example from above in the situation where the ability to offset emissions is split evenly between domestic and international offsets, to demonstrate compliance for 36,150 tons of its emissions, the covered entity could rely on 18,075 domestic offset credits and 22,594 international offset credits. (The Administrator has discretion to set appropriate rounding conventions for fractions of allowances.)

Section 722(l) explains that the year of a compliance obligation, as used in Title VII, refers to the year in which compliance is determined. Thus, for emissions in 2013, the year of the compliance obligation would be 2014.

Section 723, Penalty for Noncompliance: Establishes penalties for parties that fail to comply with the requirements of Title VII.

Section 724, Trading: Clarifies that the legislation does not restrict who can hold an allowance, nor does it restrict the purchase, sale, or other transaction involving allowances.

Section 725, Banking and Borrowing: Section 725 explains the extent to which allowances may be banked or borrowed from the future. Under section 725(a) and (b), allowances can be banked for use at any time in the future, subject to limitations set by the Administrator in a rulemaking pursuant to section 725(b). Offset credits, once issued by the Administrator pursuant to Part D of Title VII, may be banked for future use. Neither allowances nor offset credits expire unless retired, except pursuant to rules issued by the Administrator necessary to ensure the authenticity and integrity of allowances, credits, or the allowance tracking system. Under section 725(c)(1), a covered entity can "borrow" an allowance from one year in the future (i.e., an allowance with a vintage year one year greater than the calendar year in which the emissions occurred), providing that it is an allowance that the entity holds. Under section 725(c)(2), a covered entity can "borrow" an allowance that it holds from two to six years in the future (i.e., an allowance with a vintage year two to six years greater than the calendar year in which the emissions occurred, or a vintage year one to five years greater than the calendar year of the compliance obligation), provided that it is an allowance the entity holds and that the covered entity prepays a specified amount of interest. A covered entity can only demonstrate compliance for up to 15 percent of its emissions by using allowances borrowed pursuant to section 725(c)(2). This section addresses borrowing from the future, it does not address borrowing current or earlier year vintage allowances from a private entity (which is allowed).

As an example, under section 725, compliance for emissions in 2016 could be demonstrated by holding on April 1 of 2017 (or such later date as set by the Administrator), a sufficient number of:

- allowances with vintage years 2012 through 2016 (pursuant to section 725(a)); or
- 2017 vintage year allowances (under section 725(c)(1)).

In addition, compliance for up to 15 percent of emissions in 2016 could be demonstrated by holding allowances with vintage years 2018 through 2022 (pursuant to section 725(c)(2)).

Section 726, Strategic Reserve: Directs the Administrator to create a "strategic reserve" of emission allowances that will be available to help contain the costs of meeting the annual tonnage limits.

At the start of the program, the Administrator is required to fill the reserve with allowances that are taken from each year of the program in amounts specified in section 726(b)(1).

Every quarter, the Administrator shall auction a specified number of allowances from the reserve with a minimum reserve price specified in the bill. Proceeds from such auctions, if any, shall be used to refill the reserve. The Administrator shall accomplish this by using any such proceeds to purchase international offset credits for reduced deforestation. The Administrator shall then retire those offset credits and establish four new allowances (in addition to those established under section 721) for every five tons of offset credits retired. The Administrator shall then refill the strategic reserve to its original level by placing the newly-established allowances into the strategic reserve to the extent necessary to return the reserve to its original size. Once the reserve reaches its original size, if there are remaining newly-established allowances, the Administrator shall use such allowances to replace the allowances

that were originally taken (pursuant to section 726(b)(1)) from current or future vintage years. Newly-established allowances shall be retired if they are not needed to refill the reserve or to replace the allowances taken from current or future years. For example, if the Administrator sells 1,000,000 allowances in the strategic reserve auction in 2018, and prices are such that the Administrator uses the proceeds to buy 1,600,000 offset credits, the Administrator would then be required to retire those 1,600,000 offset credits and establish 1,280,000 newly-established allowances. The Administrator would be required to place 1,000,000 of the newly-established allowances into the strategic reserve. The Administrator would then take the remaining 600,000 newly-established allowances and use them to replace allowances that had been used to fill the strategic reserve initially. For example, the Administrator could designate all of the 280,000 allowances as vintage year 2018 and add them to auctions of 2018 (or later) allowances. If the Administrator had already returned to 2018 the same number of allowances that was taken from 2018 to fill the reserve, the Administrator could designate the allowances as 2019 vintage and auction them with the 2019 allowances. The Administrator has discretion to determine the best way to replace the allowances that were taken to fill the reserve, except that the Administrator cannot replace allowances that were taken from years that have already ended (e.g., in 2018, the Administrator could not replace allowances that were taken from 2017 or earlier).

At the request of an international deforestation offset credit holder, the Administrator can auction such credits in a strategic reserve auction if specified criteria are met.

Section 727, Permits: Clarifies the obligations of stationary sources under the Clean Air Act's Title V operating permit program under the newly-established Title VII program.

Section 728, International Emission Allowances: Establishes criteria that must be met before allowances from foreign programs can be used for compliance by covered entities.

PART D—OFFSETS

Section 731, Offsets Integrity Advisory Board: Establishes an independent Offsets Integrity Advisory Board composed of scientists and others with relevant expertise. The Advisory Board is charged with providing recommendations to the Administrator on: the types of offset project types that should be listed by EPA as eligible; potential levels of scientific uncertainty associated with certain offset types; appropriate quantification or other methodologies; and other areas of the offsets and deforestation provisions in the draft. The Board is also charged with conducting a regular review of all relevant areas.

Section 732, Establishment of Offsets Program: Directs the EPA Administrator to establish an offsets program and requires that regulations ensure offsets are verifiable, additional, and permanent.

Section 733, Eligible Project Types: Requires the Administrator to establish a list of offset project types that are eligible under the program, taking into account the recommendations of the Offsets Integrity Advisory Board. Provides guidelines for establishing and updating the list.

In implementing this provision, the Committee expects the Administrator to fully evaluate each of the following categories of activities for potential inclusion as eligible offset project types:

(1) agricultural, grassland, and rangeland sequestration and management practices, including—

(A) altered tillage practices;

(B) winter cover cropping, diversified rotations and other means to increase biomass returned to soil in lieu of planting followed by fallowing;

(C) conversion of cropland to rangeland or grassland, on the condition that the land has been in nonforest use for at least 10 years before the date of initiation of the project;

(D) reduction of nitrogen use or increase in nitrogen use efficiency;

(E) reduction in the frequency and duration of flooding of rice paddies;

(F) reduction in carbon emissions from organic soils;

(G) reduction in greenhouse gas emissions from manure and effluent; and

(H) reduction in greenhouse gas emissions due to changes in animal management practices, including dietary modifications;

(2) changes in carbon stocks attributed to land use change and forestry activities, including—

(A) afforestation or reforestation of acreage not forested as of January 1, 2007;

(B) forest management resulting in an increase in forest carbon stores including but not limited to harvested wood products;

(C) management of peatland or wetland;

(D) conservation of grassland and forested land;

(E) improved forest management, including accounting for carbon stored in wood products;

(F) reduced deforestation or avoided forest conversion;

(G) urban tree-planting and maintenance;

(H) agroforestry; and

(I) adaptation of plant traits or new technologies that increase sequestration by forests;

(3) manure management and disposal, including—

(A) waste aeration; and

(B) biogas capture and combustion; and

(4) non-agriculture and forestry project types, including—

(A) recycling, reuse, and waste minimization;

(B) methane collection and combustion projects at mines;

(C) methane collection and combustion projects at landfills;

(D) methane collection and combustion projects at natural gas systems;

(E) projects to reduce emissions from municipal or industrial wastewater treatment systems;

(F) projects that capture and geologically sequester uncapped greenhouse gas emissions with or without enhanced oil or methane recovery in active or depleted oil, carbon dioxide, or natural gas reservoirs; and

(G) projects to capture and destroy or avoid emissions of greenhouse gases from industrial sources for which entities do

not have compliance obligations under section 722 or other provisions of Title III.

In considering these potential project types, the Administrator must take into account recommendations of the Offsets Integrity Advisory Board.

The Committee expects the Administrator to issue an initial list of offset project types and their associated methodologies under section 734 as expeditiously as practicable, but in no case later than one year from the date of enactment. The Administrator should add additional project types, along with their associated methodologies, to the list as expeditiously as practicable, but in no case later than two years from the date of enactment. In developing baselines, measurement, and monitoring methodologies for a broad range of offset project types as quickly as possible, EPA should build on its experience in programs such as Natural Gas STAR, Climate Leaders, and the Landfill Methane Outreach Program. The Committee understands that EPA is already working with USDA and DOE on the AgSTAR program to encourage the use of methane recovery from manure digesters and is working on afforestation, reforestation, and forest management protocols under the Climate Leaders program.

The Committee strongly encourages the Administrator to consult closely with the Secretary of Agriculture on all elements of the offsets program related to agricultural and forestry practices.

Section 734, Requirements for Offset Projects: Section 734(a) requires that for each offset project type, the Administrator establish standardized methodologies for determining additionality; establishing activity baselines; measuring performance; accounting for and mitigating potential leakage. It is the Committee's intent that the Administrator, in establishing standardized methodologies for determining additionality, may adopt an approach based on performance standards. Section 734(b) requires that for each offsets project type the Administrator establish requirements to account for and address reversals from offset projects.

Sections 735, Approval of Offset Projects: Establishes procedures to approve offset projects. It is the expectation of the Committee that the requirements for standardized methodologies under section 734 will result in a simple and efficient approval process.

Section 736, Verification of Offset Projects: Directs the Administrator to establish requirements for the verification of offset project performance, and requires that verification reports be prepared by accredited third-party verifiers.

Section 737, Issuance of Offset Credits: Establishes procedures for the issuance of offset credits and directs the Administrator to issue offset credits only if the emissions reduction or sequestration has already occurred and other specified conditions are met.

Section 738, Audits: Requires the Administrator to conduct, on an on-going basis, random audits of offset projects, offset credits, and practices of third-party verifiers.

Section 739, Program Review and Revision: Requires the periodic evaluation and updating of specified areas and components of the offsets program.

Section 740, Early Offset Supply: To ensure a supply of offset credits in the early years of the program, allows for the issuance of offset credits for offsets from programs that meet specified cri-

teria. Such credits may only be issued for a limited timeframe and only for reductions achieved for a specified time period.

Section 741, Environmental Considerations: Provides requirements for additional environmental considerations for forestry and other land management-related projects.

Section 742, Trading: Provides that the trading provisions applicable to allowances are also applicable to offset credits.

Section 743, International Offset Credits: Allows the Administrator to issue international offset credits for activities that take place in developing countries. Requires that all international offset credits meet the criteria established for all offsets under sections 732–742, as well as the requirements specific to international offsets established under section 743. In addition, requires that the United States be a party to a bilateral or multilateral agreement or arrangement with the country where an offset activity would take place before any international offset credits can be issued.

Subsections 743(c), (d) and (e) provide additional specifications for three potential categories of international offset credits that are distinct from the issuance of international offset credits for international offset project types listed under section 733. Subsection 743(c) requires the Administrator, in consultation with the Secretary of State, to identify sectors in specific countries for which the issuance of international offset credits on a sector-wide, rather than project-specific, basis is appropriate.

Subsection 743(d) Establishes the terms under which the Administrator may issue international offset credits in exchange for other international instruments. These include a requirement that the Administrator has determined that the issuing international body has implemented substantive and procedural requirements for the relevant project type that provide equal or greater assurance of environmental integrity as the requirements established under Part D.

Subsection 743(e) establishes procedures and requirements regarding the issuance of international offset credits for activities that reduce deforestation. For major emitting nations, international offset credits may only be issued for national-scale activities, or for state or province-level activities in states or provinces that would themselves be considered major emitters. Smaller-scale offset projects are only allowed in countries that generate less than 1 percent of global greenhouse gas emissions as well as less than 3 percent of global forest sector and land use change emissions. After an initial period, all countries must transition to national baselines to continue generating credits.

PART E—SUPPLEMENTAL EMISSIONS REDUCTIONS FROM REDUCED DEFORESTATION

Section 751–752, Definitions and Findings: Defines forest carbon activities and finds that land use change, primarily deforestation, accounts for roughly 20 percent of global greenhouse gas emissions.

Section 753, Supplemental Emissions Reductions through Reduced Deforestation: Directs the Administrator of EPA, in consultation with the Administrator of the U.S. Agency for International Development (USAID), to establish a program to build capacity in developing countries to reduce emissions from deforestation (including preparation to participate in international markets for de-

forestation reduction offset credits), to achieve emissions reductions in addition to those achieved under the domestic emissions limit, and to protect intact forest from any shifts in land use as a result of reduced deforestation in other areas. By building capacity and providing powerful incentives to develop national efforts to reduce deforestation, the Committee intends that this program will both achieve significant reductions in emissions from deforestation (more than 6 billion metric tons of emissions) and allow many forest nations to participate in carbon markets, which will expand the supply of available offset credits.

Section 754, Requirements for International Deforestation Reduction Program: Directs the Administrators of EPA and USAID to support a broad range of activities to reduce deforestation, build capacity to measure, monitor and enforce reductions in deforestation generate for sale deforestation reduction offset credits for sale, and reduce the leakage of emissions. Activities supported through this program must be environmentally sound and should protect the rights of indigenous peoples and local communities. Support for emissions reductions must ensure that countries are transitioning to nationwide accounting of reduced deforestation.

Section 755, Reports and Reviews: Directs the Administrators of EPA and USAID to report annually to Congress on progress in reducing deforestation through this program and perform a review of the program every four years.

Section 756, Legal Effect of Part: Clarifies that this program does not supersede or limit any other federal or international law.

Section 312, Definitions

Section 700, Definitions: Defines key terms for Titles VII and VIII of the Clean Air Act.

Section 700(13)(B) defines one type of covered entity as "any stationary source that produces . . . petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid." Because there are multiple steps in the production of natural gas liquids, additional language on natural gas liquid regulation is included elsewhere in Title III to specify the covered entity with respect to natural gas liquid production or importation.

The term "natural gas liquid" is defined in section 700(36) to mean "ethane, butane, isobutane, natural gasoline and propane which is ready for commercial sale or use." The Committee's intent in including the phrase "ready for commercial sale or use" in the definition is to indicate that the point of regulation for natural gas liquids is at the point of fractionation. This step in the production of natural gas liquids, where a mixture of multiple natural gas liquids is separated (fractionated) into its constituent parts, occurs after the separation of natural gas liquids from natural gas (often done by natural gas processing facilities), but prior to the sale or transfer of the individual natural gas liquids to the petrochemical, refining, or propane sectors. Some natural gas processing plants also fractionate; in other cases natural gas processing facilities are separate from fractionating facilities, and are owned by different entities.

The owner or operator of the covered entity that produces or imports natural gas liquids under section 700(13)(B) in some cases will own the natural gas liquids, but in other cases may not. Sec-

tion 722(b)(12) requires that in situations where the covered entity described in section 700(13)(B) does not take ownership of the liquids, the owner of the liquids shall be the entity with compliance obligations under section 722, section 723, and other relevant sections of the title.

Section 700(45) defines the terms "sequestered" and "sequestration" to mean "the separation, isolation, or removal of greenhouse gases from the atmosphere, as determined by the Administrator. The terms include biological, geologic, and mineral sequestration, but do not include ocean fertilization techniques." The Committee recognizes that new sequestration technologies that do not exist today may develop in the future, and the Committee intends the Administrator to have discretion to define the types of sequestration technologies or processes that are appropriate to include within the definition, in light of the purposes of the Act.

SUBTITLE B—DISPOSITION OF ALLOWANCES

Section 321, Disposition of Allowances for Global Warming Pollution Reduction Program: Provides for emission allowances to be distributed for three primary goals: to protect consumers from energy price increases, to assist industry in the transition to a clean energy, and to spur energy efficiency and the deployment of clean energy technology. Also allocates allowances to prevent deforestation and support national and international adaptation efforts and for other purposes.

PART H—DISPOSITION OF ALLOWANCES

Section 781, Allocation of Allowances for Supplemental Reductions: Directs the Administrator to allocate allowances for the program under part E to achieve supplemental emissions reductions from reduced deforestation. Allocates 5 percent of allowances for the years 2012–2025, 3 percent for 2026–2030, and 2 percent for 2031–2050.

Section 782, Allocation of Emission Allowances: Provides for allocation of allowances to electricity consumers; natural gas consumers; home heating oil and propane consumers; low-income consumers; trade-vulnerable industries; investment in carbon capture and sequestration technologies; investment in energy efficiency and renewable energy; Clean Energy Innovation Centers; clean vehicle technology; domestic fuel production; workers; domestic, wildlife, and natural resources adaptation; international adaptation; international clean technology transfer; deficit reduction; and consumer refunds.

Section 783, Electricity Consumers: Directs the Administrator on how to distribute the approximately 30 percent of allowances allocated for the benefit of consumers to local electricity distribution companies, whose retail rates are regulated by states or other entities. Directs the Administrator on how to distribute the approximately 5 percent of allowances for merchant coal generators and certain generators with long-term power purchase agreements.

Section 784, Natural Gas Consumers: Directs the Administrator on how to distribute the approximately 9 percent allocated for the benefit of consumers to local natural gas distribution companies, whose retail rates are regulated by states or other entities.

Section 785, Home Heating Oil and Propane Consumers: Directs the Administrator on how to distribute the approximately 1.5 percent of allowances to states for programs to benefit residential and commercial users of home heating oil and propane.

Section 787, Allocations to Refineries: Directs the Administrator on how to distribute the approximately 2 percent of allowances to domestic refiners.

Section 786–788 [Reserved]

Section 789, Climate Change Consumer Refunds: Directs the Secretary of the Treasury to use proceeds from the sales of specified 2026 and later year allowances to provide rebates to consumers.

Section 790, Exchange for State-Issued Allowances: Provides for fair compensation and exchange of allowances issued by the State of California, the Regional Greenhouse Gas Initiative and the Western Climate Initiative prior to commencement of federal program.

Section 791, Auction Procedures: Establishes single-round, sealed-bid, uniform-price auction procedures, which may be modified by the Administrator.

Section 792, Auctioning Allowances for Other Entities: Establishes rules by which the Administrator may auction allowances on behalf of other entities.

Section 793, Establishment of Funds: Establishes the Strategic Reserve Fund and the Climate Change Consumer Rebate Fund in the U.S. Treasury.

Section 794, Oversight of Allocations: Requires the Comptroller General to prepare biannual reviews of the programs administered by the Federal Government that distribute emission allowances or funds from Federal auctions of allowances.

SUBTITLE C—ADDITIONAL GREENHOUSE GAS STANDARDS

Section 331, Greenhouse Gas Standards: Establishes Title VIII of the Clean Air Act to achieve additional greenhouse gas reductions outside of Title VII.

Title VIII—ADDITIONAL GREENHOUSE GAS STANDARDS

SECTION 801, DEFINITIONS

PART A—STATIONARY SOURCE STANDARDS

Section 811, Standards of Performance: Section 811 directs the Administrator to establish minimum standards of performance under section 111 of the Clean Air Act as an means of achieving reductions of greenhouse gas emissions from certain stationary sources of air pollution not subject to title III of the Clean Air Act.

When authorizing the Administrator to consider greenhouse gas emissions as "nonair quality health and environmental impacts" under section 811(b), it is the Committee's intent to allow the Administrator to require controls on non-greenhouse gases that maximize greenhouse gas reduction benefits and to allow, but not require, the Administrator to limit controls on other pollutants that interfere significantly with greenhouse gas control effectiveness. Thus where additional reductions in emissions of non-greenhouse gases resulting from the use of certain technologies may be relatively small, while associated energy penalties may be significant,

the Administrator would have the discretion not to require such controls. However, any such decisions must be wholly consistent with other health and welfare considerations; where these considerations associated with other non-greenhouse gas pollutants are found to outweigh impacts on greenhouse gas emissions, the Administrator is permitted to require further reductions of those pollutants notwithstanding resulting energy penalties or greenhouse gas emissions impacts.

Section 811(c)(2) allows the Administrator to establish work practice standards without regard to any determination of the feasibility of other forms of emissions control that would otherwise be required under section 111(h) of the Clean Air Act. Congress intends to allow the Administrator to require improvements in process or energy efficiency that would reduce greenhouse gas emissions directly or indirectly without first having to find that other forms of capture or control are infeasible. The Administrator is also allowed to require efficiency improvements in lieu of capture or control technologies that exceed the bill's cost limitations and may also require such energy efficiency improvements in addition to controls that meet the cost limiting criteria.

The cost-containment provisions provided in section 811(c)(3) are intended to keep the costs of requirements for uncapped sources roughly in line with or below the costs of requirements for those of capped sources when viewed on a source category basis. That is, so long as costs are acceptable when viewed on average for the source category, the provisions do not provide a bar to enforcement of performance standards on any individual source where the cost of compliance may exceed the projected price of allowances during the applicable period. The Administrator's analysis of selected technologies must reflect a reasonable expectation that costs will not exceed projected allowance prices, but is not required to provide absolute certainty, nor shall actual costs in any individual case provide a basis for exemption from any standards, as noted above.

Under section 811(a), the Administrator may list under section 111(b) the source categories identified in the inventory without making an endangerment finding. The inventory called for in this subsection is intended to identify the specific source categories that meet the specific criteria identified by Congress, and Congress has determined that the Administrator must establish standards of performance for greenhouse gas emissions from these categories. Therefore, the Administrator may list new source categories under section 111(b), without making the required endangerment finding, as necessary to ensure that every source category on the inventory is properly listed under 111(b). Such listings may be necessary, for example, if the category is not already listed under section 111(b) or if the scope of the source category identified in the inventory does not correspond with the scope of the source category currently listed under section 111(b).

PART C—EXEMPTIONS FROM OTHER PROGRAMS

Section 831, Criteria Pollutants: Provides that greenhouse gases may not be added to the list of criteria air pollutants on the basis of their effect on climate change.

Section 832, International Air Pollution: Provides that section 115 of the Clean Air Act shall not apply to an air pollutant with respect to that pollutant's contribution to global warming.

Section 833, Hazardous Air Pollutants: Provides that greenhouse gases may not be listed as hazardous air pollutants on the basis of their effect on climate change.

Section 834, New Source Review: Provides that New Source Review shall not apply to a major emitting facility that is initially permitted or modified after January 1, 2009, on the basis of its emissions of any greenhouse gases. This language is intended to make clear on a going forward basis that New Source Review does not apply to greenhouse gases. It is not an expression of congressional intent with respect to the application of New Source Review to greenhouse gases prior to that date.

Section 835, Title V Permits: Provides that greenhouse gases shall not be considered when determining whether a stationary source is required to operate pursuant to a permit under Title V. Where sources are required to have a Title V permit due to the sources' emissions of any pollutant that is regulated for any reason other than its effect on global climate change, this section does not alter the applicability of title V for such sources, nor does it provide any exclusion from any of the requirements of Title V (including but not limited to reporting requirements and certification requirements, as they would apply to such sources). Any applicable requirements of the Safe Climate Act would be considered applicable requirements of the Clean Air Act and must be incorporated into Title V permits for such sources. Additional provisions governing how the requirements of title VII of this bill are to be addressed in title V permits for such sources may be found in section 727.

Section 332, HFC Regulation: Section 332 amends Title VI of the Clean Air Act by adding a new section 619 to phase down the consumption of hydrofluorocarbons (HFCs), many of which are extremely potent greenhouse gases, under a separate limit and reduction schedule. Using a market-based regulatory approach similar to the one that continues to be successful in addressing substances that deplete the stratospheric ozone layer, the bill requires HFC consumption to be phased-down to 15 percent of the baseline by 2032. Allowances would be distributed through a combination of annual auctions and non-auction sales.

This new section 619 includes numerous references to existing sections of Title VI. Except as otherwise provided in this section, EPA is expected to treat class II, group II substances similarly to the way in which it has treated ozone depleting substances in implementing and interpreting these existing sections of Title VI.

In section 619, production of class II, group II substances refers to production of such substances in the United States. Importation of class II, group II substances refers to the importation of such substances in bulk into the United States. Importation of products containing any class II, group II substances refers to the importation of such products into the United States.

The bill provides for bidding limits in 2014 and beyond to be based in part on the highest number of allowances required to be held by the participant in the prior three years. The number of allowances actually held by a participant may be higher or lower than the number of allowances required to be held (if allowances

were banked or if destruction offset credits were used to meet a portion of the compliance obligation), but the number of allowances actually held by a participant will not be used in determining the bidding limits.

It is the intent of this section to provide a financial incentive for the recovery and destruction of chlorofluorocarbons (and potentially other ozone depleting substances that have been globally phased out of production under the Montreal Protocol). Generation of destruction offset credits through the destruction of CFCs (and potentially other ozone depleting substances) offers an additional path to meet compliance obligations under section 619(b). With the exception of offset credits issued under section 740, offsets generated pursuant to section 619(b)(9) may be used as offset credits under Title VII only if the Administrator extends their use to Title VII under section 619(b)(9)(E), pursuant to the requirements of Part D of Title VII, and based on the carbon dioxide equivalent value of the substance destroyed. In the event of such an extension, destruction offset credits for the destruction of a quantity of CFCs (or potentially other ozone depleting substances) may be issued under either Title VI or Title VII, but in no case may an offset credit be issued under both titles for the destruction of the same quantity of a substance.

The specific reporting provisions in section 619(n) do not preclude EPA's use of the general authority under section 114 to obtain information for the purpose of carrying out any provision of Title VI, including the provisions concerning class II, group II substances.

Section 332(c)(4) amends section 605(a) of the Clean Air Act to allow introduction into interstate commerce or use of HCFCs that are listed as acceptable for use as fire suppression agents for nonresidential applications under section 612. The phrase "listed as acceptable for use" is intended to include substances listed as acceptable for use "subject to use conditions" or "subject to narrowed use limits" as well as those listed as acceptable without qualification.

Section 333, Black Carbon: Directs the Administrator to report on existing efforts to reduce domestic black carbon pollution and use existing authority to achieve further reductions. Directs the Administrator, in coordination with the Secretary of State, to report to Congress on current and potential future assistance to foreign nations to help reduce black carbon pollution.

Section 334, States: Preserves states' existing authority to adopt and enforce standards or limitations on air pollution under the Clean Air Act, including greenhouse gas emissions.

Section 335, State Programs: Bars states from implementing or enforcing a cap-and-trade program to control on greenhouse gas emissions covered by Title VII between the years 2012 to 2017, but allows regulation of such emissions by other means during this period.

Section 336, Enforcement: Provides that for petitions for review under the Clean Air Act, the court may remand an action of the Administrator without vacatur under specified circumstances. Requires the Administrator to take final action on a petition for reconsideration under the Clean Air Act within 150 days of receipt.

Section 337, Conforming Amendments: Provides for conforming amendments to Clean Air Act enforcement and administrative provisions to incorporate titles VII and VIII.

Section 338, Davis-Bacon Compliance: Requires that recipients of emission allowances or funding under this Act provide reasonable assurances that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by the Federal Government pursuant to this Act will be paid at least prevailing wages as determined by the Secretary of Labor in accordance with what is commonly known as the Davis-Bacon Act (subchapter IV of chapter 31 of title 40, United States Code). The provisions would not apply, however, to retrofitting of any residential building or of specified nonresidential buildings.

SUBTITLE D—CARBON MARKET ASSURANCE

Section 341, Carbon Market Assurance: Amends the Federal Power Act to provide for strict oversight and regulation of the new markets for emission allowances, offset credits, and Federal renewable electricity credits (RECs). Ensures market transparency and liquidity and allows trading in allowance, offset credit, and REC futures so that regulated entities can protect themselves against future cost increases and obtain the allowances or credits they need for compliance at a fair price. The Federal Energy Regulatory Commission is charged with regulating the cash market in allowances, offsets, and RECs. The President is empowered to delegate regulatory responsibility for the markets in derivatives if these instruments to an appropriate agency, based on the advice of an interagency working group. Protects market participants from speculation and market manipulation, by including default position limits of 10 percent on allowance, offset credit and REC derivatives and a default ban on over-the-counter trading of such derivatives, and other regulatory requirements for both the cash and derivatives markets.

SUBTITLE E—ADDITIONAL MARKET ASSURANCE

Sections 351 through 358: Amends the Commodity Exchange Act to provide greater oversight of energy commodity derivatives and credit default swaps. Establishes default Commodity Futures Trading Commission regulatory authority over and regulations of allowance derivative markets.

Section 359, Cease-and-desist authority: Amends the Natural Gas Act and Natural Gas Policy Act to grant the Federal Energy Regulatory Commission cease-and-desist authority to prevent violations of these Acts.

TITLE IV—TRANSITIONING TO A CLEAN ENERGY ECONOMY

SUBTITLE A—ENSURING REAL REDUCTIONS IN INDUSTRIAL EMISSIONS

Section 401, Ensuring Real Reductions in Industrial Emissions: Creates a program within Title VII of the Clean Air Act, as established by this Act, to ensure real reductions in industrial greenhouse gas emissions through emission allowance rebates and international reserve allowances.

Part F—Ensuring Real Reductions in Industrial Emissions

Section 761, Purposes: Outlines the purposes of Subtitle A and the additional purposes of Part 1 of Subtitle A. The purposes of

Subtitle A include: promoting a strong global effort to significantly reduce greenhouse gas emissions and preventing an increase in greenhouse gas emissions in foreign countries as a result of compliance costs incurred under title VII of the Clean Air Act, as added by ACES of 2009. The additional purposes of Part 1 include: compensating eligible domestic industrial sectors and subsectors for costs incurred under Title VII; limiting such compensation to amounts that meet the goals of the program; and rewarding innovation and facility-level investments in efficiency upgrades and performance improvements.

Section 762, International Negotiations: Finds that the purposes of this subtitle can be most effectively achieved through international agreements and states that it is the policy of the United States to work proactively under the UNFCCC and in other forums to establish binding agreements committing all major-emitting countries to contribute equitably to the reduction of global greenhouse gas emissions.

Section 763, Definitions: Provides relevant definitions.

Subpart 1—Emission Allowance Rebate Program

Section 764, 765, Eligible Industrial Sectors, Distribution of Emission Allowance Rebates: Establishes a program that rebates allowances to eligible industrial sectors and subsectors in an amount intended to compensate entities in those sectors for the costs they incur as a result of complying with the pollution limit established by Title VII.

Instructs the EPA Administrator to annually distribute rebates to the owners and operators of entities in eligible industrial sectors. The Administrator is required to determine which facilities should be eligible for rebates through a rule based on an assessment of economic factors, including (1) the energy or greenhouse gas intensity in a sector and (2) the trade intensity in such sectors. Sectors meeting the listed criteria for both factors would be deemed eligible to receive rebates.

Subsection (b)(3)(A) is designed to address an anomaly that arises when an industrial subsector meets the eligibility criteria of paragraph (2)(A), but its 6-digit NAICS code fails to meet the eligibility criteria. The result is that an otherwise eligible subsector does not presumptively qualify to receive emission allowance rebates. For example, the industrial subsector that manufactures ceramic substrates for mobile source emissions control equipment may fall within a NAICS code that includes manufacturers of a wide variety of products, and the entire 6-digit NAICS code may not presumptively be eligible for emission allowance rebates, even though the specific industrial subsector would, if it was classified in its own NAICS code, presumptively qualify for rebates. Recognizing this anomaly, the Committee included Subsection (b)(3)(A) to give firms in such subsectors an opportunity to petition the Administrator for relief based upon evidence demonstrating that the industrial subsector meets the criteria of paragraph (2)(A) to be eligible to receive emission allowance rebates.

Rebates are distributed to eligible facilities on a product output basis, with compensation provided for both direct and indirect compliance costs. For direct compliance costs, allowance distribution is calculated by multiplying a facility's product output by the sector

average tonnage of greenhouse gas emissions per unit of product output. For indirect costs passed on by electric utilities, allowance distribution is calculated by multiplying a covered or uncovered facility's product output (1) by the "emissions intensity" of each facility's electric power supplier and (2) by the sector average electricity use per unit of product output.

Subpart 2—International Reserve Allowance Program

Section 766, International Reserve Allowance Program: Establishes an international reserve allowance program, which may be implemented by the President beginning in 2025 pursuant to a determination under Part 3.

Subpart 3—Presidential Determination

Section 767, Presidential Reports and Determinations: Requires the President to submit a report to Congress no later than January 1, 2018, regarding the effectiveness of the distribution of emission allowance rebates under Part 1 in mitigating the risk of increased greenhouse gas emissions in foreign countries resulting from compliance costs incurred under title VII.

Requires the President to make a determination, no later than June 30, 2022, and every four years thereafter, for each sector eligible for rebates under Part 1, of whether more than 70 percent of global output of that sector is produced in countries that meet at least one of the following criteria: (1) party to an international treaty to which the U.S. is a party that includes a nationally enforceable emissions reduction commitment that is at least as stringent as that of the U.S.; (2) party to an international sectoral agreement for that sector to which the U.S. is a party; (3) energy or greenhouse gas intensity for that sector that is equal or less than that of the U.S.; or (4) implemented emissions reduction policies that together impose a cost on that sector that is at least 60 percent of the cost of complying with Title VII for that sector in the United States.

If the President determines that less than 70 percent of global output of a sector is produced in countries that meet one or more of the above criteria, then the President shall continue emission allowance rebate program under Part 1 or implement the International Reserve Allowance Program under Part 2 or a combination of the two for that sector. In the absence of such a determination, the emission allowance rebates for entities in the sector will decline by 10 percent per year.

SUBTITLE B—GREEN JOBS AND WORKER TRANSITION

Part 1—Green Jobs

Section 421, Clean Energy Curriculum Development Grants: Amends the Carl. D. Perkins Career and Technical Education Act of 2006 to authorize the Secretary of Education to award grants to universities and colleges to develop programs of study that prepare students for careers in renewable energy, energy efficiency, and other forms of global warming mitigation. These grants are peer reviewed by experts with relevant experience in the areas being considered for funding.

Section 422, Increased Funding for Energy Worker Training Program: Increases the authorization for the Green Jobs Act, authorized in the Energy Independence and Security Act, from $125 million to $150 million.

Part 2—Climate Change Worker Adjustment Assistance

Section 425–427, Petitions, Eligibility Requirements, and Determinations; Program Benefits; General Provisions: Establishes a program pursuant to which any worker displaced as a result of the Title VII of the Clean Air Act would be entitled to 156 weeks of income supplement, 80 percent of their monthly health care premium, up to $1,500 for job search assistance, up to $1,500 for moving assistance, and additional employment services for skills assessment, job counseling, training, and other services. Payments under the program cannot exceed the proceeds from the auction of allowances set aside for this purpose.

SUBTITLE C—CONSUMER ASSISTANCE

Section 431, Energy Tax Credit: In the event of any reduced purchasing power as a result of Title VII of the Clean Air Act, provides tax credits to the lowest-income households to compensate for such losses.

Section 432, Energy Refund Program for Low-Income Consumers: Directs the EPA Administrator to administer an "Energy Refund Program" to provide monthly cash energy refunds to low-income individuals to compensate for any reduced purchasing power resulting from Title VII of this Act. Provides that energy refunds shall not be considered taxable income.

The cost of this subtitle—including both the energy refund program and the refundable tax credit—are offset by the set aside of the proceeds from the auction sale of 15 percent of the emission allowances. The proceeds from these allowances are deposited into the U.S. Treasury. The amount of assistance provided is not, however, limited by the auction proceeds deposited into the Treasury.

SUBTITLE D—EXPORTING CLEAN TECHNOLOGY

Sections 441–443, Findings and Purposes, Definitions, Governance: States that the purpose of this subtitle is to provide U.S. resources to encourage widespread deployment of clean technologies to developing countries. Establishes a Clean Technology Account administered by the State Department in consultation with an interagency group. The Account will supplement and not supplant other federal funding.

Section 444, Determination of Eligible Countries: Generally, only developing countries that have ratified an international treaty or agreement or have undertaken nationally appropriate mitigation activities achieving substantial greenhouse gas reductions are eligible for bilateral assistance. Least developed countries may use assistance to build capacity toward meeting eligibility criteria.

Sections 445, Qualifying Activities: Eligible projects must achieve substantial greenhouse gas reductions that are substantial, measurable, reportable, and verifiable. Eligible activities include deployment of carbon capture and storage, renewable electricity, efficiency projects, deployment of low-emissions technology, transpor-

tation reductions, black carbon reductions, and capacity building activities.

Section 446, Assistance: The Secretary of State is authorized to provide assistance through the distribution of allowances bilaterally, through an international fund, or through a multilateral institution pursuant to the UNFCCC. Preference is given to projects that promise to achieve large-scale greenhouse gas reductions, may catalyze widespread deployment of clean technology, build institutional capacity, and leverage private resources. To the extent practicable, assistance should reinforce other foreign policy goals.

SUBTITLE E—ADAPTING TO CLIMATE CHANGE

Part 1—Domestic Adaptation

Subpart A—National Climate Change Adaptation Program

Section 451, National Climate Change Adaptation Program. Establishes a climate change adaptation program within the U.S. Global Change Research Program.

Section 452, Climate Services. Establishes a National Climate Service within NOAA to develop climate information, data, forecasts, and warnings at national and regional scales and to distribute information on climate impacts to state and local decision-makers.

Section 453, State Programs to Build Resilience to Climate Change Impacts: Distributes emission allowances to states for implementation of adaptation projects, programs, or measures to build resilience to the impacts of climate change, contingent on the completion of an approved State Adaptation Plan. Eligible projects include, but are not limited to, those designed to respond to extreme weather events such as flooding or hurricanes, changes in water availability, heat waves, sea level rise, ecosystem disruption, and air pollution.

Subpart B—Public Health and Climate Change

Sections 461. Sense of Congress on Public Health and Climate Change: States that it is the sense of Congress that the federal government should take all means and measures to prepare for and respond to the public health impacts of climate change.

Section 462, Relationship to Other Laws: Clarifies that nothing in the subpart limits authorities or responsibilities conferred by other law.

Section 463. National Strategic Action Plan: Requires the Secretary of Health and Human Services to prepare a strategic plan to assist health professionals in preparing for and responding to the impacts of climate change on public health with disease surveillance, research, communications, education, and training programs. Authorizes the Secretary to implement these programs using authorities under this subpart and other federal laws.

Sections 464–465, Advisory Board, Reports: Establishes a science advisory board to advise the Secretary on science related to the health effects of climate change. Requires a needs assessment for health effects of climate change and periodic reports on scientific developments and recommendations for updating the national strategy.

Sections 466–467. Definitions, Climate Change Health Protection and Promotion Fund: Establishes a fund in the Treasury for carrying out this subpart. Funding will be distributed by HHS but may be made available to other agencies and state and local governments. Funding will supplement, not replace other public health funding.

Subpart C—Natural Resource Adaptation

Section 471–475, Purposes, Policy, Definitions, CEQ, Resources Adaptation Panel: States that it is the policy of the federal government to use all practicable means and measures to assist natural resources to adapt to climate change. Establishes a Natural Resources Climate Change Adaptation Panel, chaired by the White House Council on Environmental Quality, as a forum for interagency coordination on natural resources adaptation.

Section 476, Natural Resources Climate Change Adaptation Strategy: Requires the Panel to develop a strategy for making natural resources more resilient to the impacts of climate change and ocean acidification. The strategy must assess likely impacts to natural resources, strategies for helping wildlife adapt, and specific actions that federal agencies should take.

Section 477, Natural Resources Adaptation Science and Information: Establishes a process through NOAA and the U.S. Geological Survey National Global Warming and Wildlife Science Center to provide technical assistance, conduct research, and furnish decision tools, monitoring, and strategies for adaptation. Requires a survey of resources that are likely to be adversely affected and the establishment of a Science Advisory Board to advise the science program and recommend research priorities.

Section 478, Federal Natural Resource Agency Adaptation Plans: Requires federal agencies to develop natural resource adaptation plans, consistent with the National Strategy, including prioritized goals and a schedule for implementation of adaptation programs within their respective jurisdictions.

Section 479, State Natural Resources Adaptation Plans: Requires states to develop Natural Resources Adaptation Plans as a condition for receiving funds under the programs in this subtitle.

Section 480, Natural Resources Climate Change Adaptation Fund: Establishes a Natural Resources Climate Change Adaptation Fund. Allowances devoted to Natural Resources Adaptation are distributed to the States—84.4 percent to State wildlife agencies and 15.6 percent to State coastal agencies. Funds placed in the Natural Resources Climate Change Adaptation Fund are distributed to Federal agencies: 27.6 percent to the Department of the Interior (DOI) for endangered species, bird, and Fish and Wildlife Service programs, wildlife refuges, and the Bureau of Reclamation; 8.1 percent to DOI for cooperative grant programs; 4.9 percent to DOI for tribal programs; 19.5 percent to the Land and Water Conservation Fund (⅙ to DOI for competitive grants, ⅓ for land acquisition under § 1A7 of the Land and Water Conservation Fund Act, ⅓ to the Department of Agriculture for land acquisition, ⅙ to USDA for the Forestry Assistance Act); 5 percent to USDA for the Forest Service; 12.2 percent to EPA for freshwater ecosystems; 8.1 percent to the Army Corps of Engineers for freshwater ecosystems; and 11.5 percent to NOAA for coastal and marine ecosystems. All funds author-

ized must be used for adaptation activities, consistent with federal plans.

Section 481, National Wildlife Habitat and Corridors Information Program: Establishes a program in the Department of the Interior to support States and tribes in the development of a GIS database of fish and wildlife habitat corridors, and to facilitate the use of database tools in wildlife management programs.

Section 482, Additional Provisions Regarding Indian Tribes: Clarifies that nothing in this subpart amends federal trust responsibilities to tribes, exempts information on Indian tribe sacred sites or cultural activities from FOIA, and clarifies that the Department of the Interior may apply the provisions of the Indian Self-Determination and Education Assistance Act as appropriate.

Part 2—International Climate Change Adaptation Program

Sections 491–493, Findings and Purposes, Definitions, International Climate Change Adaptation Program: Establishes an International Climate Change Adaptation Program within USAID to provide U.S. assistance to the most vulnerable developing countries for adaptation to climate change. Resources allocated to this program will supplement and not replace other international adaptation assistance.

Section 494, Distribution of Allowances: The Administrator of USAID shall distribute allowances bilaterally and through multilateral funds or institutions pursuant to the UNFCCC. Multilateral institutions must receive between 40 and 60 percent of allowances; multilateral fund eligibility is contingent on developing world participation, transparency requirements, and community engagement.

Sections 495, Bilateral Assistance. The Administrator of USAID shall distribute allowances through public or private organizations to provide assistance to the most vulnerable developing countries for adaptation efforts. The Administrator must prioritize assistance based on vulnerability to climate change. The bilateral assistance program must ensure community engagement and consultation, and will seek to align broader U.S. foreign policy goals with its assistance. The program may use its assistance to support projects, policies, or programs, or to build program capacity in developing countries.

EXPLANATION OF AMENDMENTS

During full Committee consideration of H.R. 2454, there were 94 amendments offered and 36 of those amendments were adopted. An amendment in the nature of a substitute offered by Mr. Waxman and Mr. Markey served as the markup vehicle for consideration of H.R. 2454. The amendments offered were to the Waxman-Markey substitute amendment, which was adopted by a voice vote, amended.

The following is a brief explanation of each of the amendments adopted by the Committee to H.R. 2454:

Tuesday, May 19, 2009. The Committee approved the following 11 amendments during consideration of H.R. 2454:

Amendment offered by Rep. Dingell: Agreed to by a recorded vote, 51–6. This amendment establishes a self-sustaining Clean Energy Deployment Administration within the Department of Energy to promote the domestic development and deployment of clean en-

ergy technologies. The Clean Energy Deployment Administration would partner with and support private capital markets to promote access to affordable financing for a range of clean energy technologies that might otherwise be unable to secure financing. The amendment ensures support for a variety of next generation technologies by limiting to 30 percent the amount of financial assistance provided to any one technology. It also includes reforms to the loan guarantee program established by Title 17 of the Energy Policy Act of 2005.

Amendment offered by Rep. Sutton: Agreed to by a recorded vote, 50–4, 1 present. This amendment authorizes a new "Cash for Clunkers" program. Under this program, consumers may trade in their old, gas-guzzling vehicles and receive vouchers worth up to $4,500 to help pay for new, more fuel efficient cars and trucks. The program is authorized for $4 billion for one year, providing for approximately one million new car or truck purchases.

New passenger cars which achieve at least 22 mpg are eligible for a $3,500 voucher if the performance of the new car is at least 4 mpg higher than the old vehicle and a $4,500 voucher if the performance of the new car is at least 10 mpg higher than the old vehicle. Light duty trucks which achieve at least 18 mpg are eligible for a $3,500 voucher if the performance of the new truck is at least 2 mpg higher than the old vehicle and a $4,500 voucher if the performance of the new truck is at least 5 mpg higher than the old vehicle. Large light duty trucks which achieve at least 15 mpg are eligible for a $3,500 voucher if the performance of the new truck is at least 1 mpg higher than the old vehicle and a $4,500 voucher if the performance of the new truck is at least 2 mpg higher than the old vehicle. Consumers can also trade in a pre-2002 work truck (defined as a pick-up truck or cargo van weighing from 8,500–10,000 pounds) and receive a voucher worth $3,500 for a new work truck in the same or smaller weight class. Consumers can also "trade down," receiving a $3,500 voucher for trading in an older work truck and purchasing a smaller light-duty truck weighing from 6,000–8,500 pounds. Work truck purchases are capped such that the total funds used to purchase work trucks cannot exceed 7.5 percent of all program funds. The section also includes important consumer protections and protections against program fraud.

Amendment offered by Rep. Eshoo: Agreed to by a voice vote. This amendment authorizes the Secretary of Energy to provide grants to nonprofit organizations that conduct competitive programs to identify and support start-up businesses proposing products or services in areas of energy efficiency, renewable energy, air quality, water quality and conservation, transportation, smart grid, green building, and waste management.

Amendment offered by Rep. Baldwin: Agreed to by a recorded vote, 30–19. This amendment requires the Secretary of Energy to create building assessment centers at institutions of higher education to identify opportunities to optimize the energy and environmental performance of buildings. The centers would also promote emerging technologies and research and development to improve buildings' energy and environmental performance. Additionally, the centers would train engineers, architects, and building technicians in energy efficient building design and operation.

This amendment also provides for the establishment of not more than 10 regional centers for energy and environmental knowledge and outreach (CEEKO) to coordinate various energy-related research centers. Operating in coordination with each CEEKO would be one or more industrial research and assessment center, building assessment center, and clean energy application center located in that CEEKO's region. Institutions of higher education would compete to house such centers and would operate internship programs to train students in energy efficiency with Federal funding supporting up to 50 percent of the costs.

Amendment offered by Rep. Christensen: Agreed to by a voice vote.

This amendment would amend the diesel emission reduction grant program established by Subtitle G of title VII of the Energy Policy Act of 2005 (42 U.S.C. 16131 et seq.) by adding American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, Puerto Rico, and the Virgin Islands to the list of States eligible to receive grants, and by adjusting the grant distribution formula accordingly.

Amendment offered by Rep. Space: Agreed to by a voice vote. This amendment modifies the eligibility criteria that owners or operators of certain electric generating projects must meet in order to receive allowances under section 786 (commercial deployment of carbon capture and sequestration technologies). The amendment establishes the conditions under which projects that retrofit carbon capture and sequestration (CCS) equipment onto a portion of a large, existing power plant's flue gas stream would be eligible to receive allowances. It is likely that at least some existing electric generating units would be unable, for technical reasons, to retrofit CCS technologies such that the entire flue gas stream of the electric generating unit is treated by those technologies. Early retrofit applications are likely only to treat a portion of a power plant's flue gas stream, rather than all of it. Under the amended language, retrofit projects that apply CCS technology to the flue gas of at least 200 megawatts of the plant's capacity would be eligible (though retrofits projects that treat the full stream would still qualify under 786(b)(1)(A)(i)). Such projects would need to measure emission reductions only for the relevant portion of the flue gas, not for 100 percent of the plant's flue gas. The amendment limits the eligibility of retrofit projects to receive allowances under subsections (b)(1)(A)(ii) and ((b)(1)(A)(iv)(II) to the first 1 gigawatt of treated flue gas (that is, the retrofit of CCS technologies to the flue gas generated by 1 gigawatt in cumulative generating capacity), as reported by the Administrator.

En Bloc Amendment offered by Rep. Baldwin: Rep. Baldwin offered en bloc an amendment offered by herself and Rep. Rush. The Baldwin en bloc amendment was considered and agreed to by voice vote.

1. Amendment offered by Rep. Baldwin: This amendment requires Federal Energy Regulatory Commission regulations implementing the Combined Efficiency and Renewable Electricity Standard to include procedures for counting electricity savings achieved by solar water heating and solar light pipe technology.

2. Amendment offered by Rep. Rush: This amendment makes two changes to section 132 of the Act, which governs the use of emis-

sion allowances distributed to States to support energy efficiency and renewable energy programs. First, the amendment makes low-income community energy efficiency programs that are consistent with the Department of Energy grant program established under section 264 of the Act eligible for receipt of support under section 132. Second, it requires that each State use at least 1 percent of the emission allowances that it receives under section 132 to support such programs.

En Bloc Amendment offered by Rep. Baldwin: Rep. Baldwin offered en bloc an amendment offered by Reps. Inslee and Schakowsky. The Inslee and Schakowsky amendments were agreed to by a recorded vote, 36–20.

3. Amendment offered by Rep. Inslee: This amendment requires the Secretary of Energy to establish a National Bioenergy Partnership to support the institutional and physical infrastructure necessary to promote the deployment of sustainable biomass fuels and bioenergy technologies.

4. Amendment offered by Rep. Schakowsky: This amendment establishes an Office of Consumer Advocacy at the Federal Energy Regulatory Commission to identify and defend the consumer interest in proceedings before the Commission. The office would be headed by a Presidentially-appointed Director, and would represent energy customers through investigations of rates, in complaints, and on appeal of Commission decisions concerning such matters.

Amendment offered by Rep. Castor: Agreed to by a recorded vote, 32–18. This amendment provides that, notwithstanding any provision in the Public Utility and Regulatory Policies Act of 1978 (PURPA), any State may establish rates to be paid by state-regulated utilities intended to provide incentives for development of renewable energy. In the past, some have interpreted PURPA to bar such incentive rates to the extent they exceed the "avoided cost" of power a utility could generate or procure from any other source.

Wednesday, May 20, 2009. The Committee approved the following 16 amendments during consideration of H.R. 2454:

Amendment offered by Rep. Green: Agreed to by a voice vote. This amendment to section 786(b)(1)(B)(ii) changes the applicable point of application for eligible industrial projects under section 786 (commercial deployment of carbon capture and sequestration technologies). The original text referred to a "50 percent reduction in emissions of the carbon dioxide produced by the source"; the amendment strikes the word "source" and replaces it with the term "emission point." This modification reflects the recognition that an industrial facility may have many emission points, as opposed to one large emission source, such as the flue gas stack of a power plant. Under the amended language, a single emission point at an industrial facility—for example, a particular emission unit within a refinery, rather than the refinery as a whole—would be the relevant point against which to measure emission limits for an industrial source project under section 786.

Amendment offered by Rep. Shadegg: Modified by unanimous consent, agreed to as modified by a voice vote. This amendment requires the EPA Administrator, in consultation with the Department of State and the United States Trade Representative, to annually prepare a report to Congress on whether China and India have adopted greenhouse gas emissions standards at least as strict

as the standards required under this Act. In the case of a determination that China and India have not adopted such standards, the Administrator is to notify the media and Congress of the determination.

En Bloc Amendment offered by Rep. Matsui: Rep. Matsui offered en bloc an amendment offered by Reps. Baldwin and Eshoo. The amendments were agreed to by voice vote.

1. Amendment offered by Rep. Baldwin: This amendment provides for the Secretary of Energy to conduct an assessment of the stock and usage of electric motors and motor-driven equipment from an energy efficiency perspective and to identify opportunities for upgrading such motors to improve energy efficiency. The Secretary is then instructed to establish a national program targeted at motor end-users to make them aware of the potential energy efficiency gains that could be realized by using more efficient motors and motor control equipment.

2. Amendment offered by Rep. Eshoo: This amendment requires the Director of the Office of Management and Budget to collaborate with each Federal agency to create an implementation strategy for the purchase and use of energy efficient information and communication technologies and practices, establishing performance goals for each agency within 6 months of enactment. Such technologies and practices include advanced metering, efficient data center strategies, updated applications, building systems, and telework.

En Bloc Amendment offered by Rep. Matsui: Rep. Matsui offered en bloc an amendment offered by herself and Reps. Baldwin and Welch. The amendments were agreed to by voice vote.

3. Amendment offered by Rep. Baldwin: This amendment establishes a rebate program for replacement of low efficiency industrial-scale electric motors with high-efficiency motors. The rebate amount is $25 per unit of nameplate horsepower of the new motor to the purchaser of that motor, and $5 to the distributor of that motor.

4. Amendment offered by Rep. Matsui: This amendment authorizes a grant program through the Department of Energy to provide technical and financial assistance to retail power providers that carry out targeted tree planting programs, which reduce energy use and demand peaks in residential and small office settings.

5. Amendment offered by Rep. Welch: This amendment declares a national energy efficiency goal of improving overall energy productivity of the United States by 2.5 percent per year beginning in 2012 and continuing through 2030. It instructs the Secretary of Energy, the Administrator of the Environmental Protection Agency, and other relevant federal agencies, with public input, to collaborate on a strategic plan to achieve such a national goal, detailing the regulatory, funding, and policy priorities required to do so, and to update that plan biennially.

Amendment offered by Rep. Matheson: Agreed to by a voice vote. This amendment modifies the violation and enforcement provisions of the building code provisions in section 201 of the Act. The amendment directs the Secretary of Energy to conduct a rulemaking to determine appropriate violations and penalties within three years of enactment, thus allowing for stakeholder input.

En Bloc Amendment offered by Rep. McNerney: Rep. McNerney offered en bloc an amendment offered by Rep. Christensen. The

Christensen amendment was considered was agreed to by voice vote.

1. Amendment offered by Rep. Christensen: This amendment requires the Secretary of Energy to establish a team of technical, policy, and financial experts to address the energy needs of the islands that make up U.S. territories or are otherwise affiliated with the U.S. The team will assess the means of reducing these islands' reliance on imported fossil energy, increasing the use of indigenous energy, and increasing the efficiency of energy use on the islands. The team will also develop an energy action plan for each island based on that assessment.

En Bloc Amendment offered by Rep. McNerney: Rep. McNerney offered en bloc an amendment offered by himself and Rep. Baldwin. The McNerney and Baldwin amendments were agreed to by a recorded vote, 34–21.

2. Amendment offered by Rep. McNerney: This amendment authorizes the EPA's WaterSense program, a voluntary labeling program that labels water-efficient high-performance products and services. This will provide the same type of labeling for water efficient products and services as is already done for energy efficient products under the existing Energy Star program. It also directs federal agencies to make cost-effective water-efficient procurement decisions whenever possible. Finally, it authorizes grants to state governments that establish programs that offer financial incentives to consumers who purchase and install water-efficient products and services such as those labeled by WaterSense.

3. Amendment offered by Rep. Baldwin: This amendment would create a new product carbon disclosure program at EPA. Not later than 18 months after the date of enactment, EPA would be required to issue a report to Congress regarding whether a national product carbon disclosure program and labeling program would be effective in reducing greenhouse gas emissions and other related matters. No later than 36 months after the date of enactment, EPA would be required to establish a national product carbon disclosure program, participation in which shall be voluntary. The national product carbon disclosure program may include a product carbon labeling program.

Amendment offered by Rep. Sullivan: Agreed to by a voice vote. This amendment adds use of alternative fuel transit buses to the list of strategies to be considered when planning to reduce greenhouse gas emissions from the transportation sector, pursuant to section 222.

Amendment offered by Rep. Welch: Agreed to by a division vote of, 25–4. This amendment would create and authorize funds for an EPA program to replace wood stoves or pellet stoves that do not meet specified EPA standards of performance for new residential wood heaters with ones that do meet those standards. The amendment would also allow EPA to continue to accept wood stove or pellet stove replacement projects as Supplemental Environmental Projects provided that certain conditions are met.

Amendment offered by Rep. Eshoo: Agreed to by a division vote of, 26–10. This amendment adds a new subsection 721(h) that requires the Administrator to conduct, by no later than March 31, 2014, an assessment of how non-HFC (hydrofluorocarbon) fluorinated gases are regulated under Title III. H.R. 2454 regulates

non-HFC fluorinated gases in either of two ways. Emissions of nitrogen trifluoride (NF3) are regulated at the point of emission (or "downstream"), meaning the entity at which NF3 emissions occur is the same entity with compliance obligations for those emissions under section 722(b)(4). Other non-HFC fluorinated gases are regulated at the point of manufacture or importation ("upstream"), meaning the entity that produces or imports the gas is the entity with compliance obligations under section 722(b)(3). Section 721(h) directs the Administrator to assess the regulation of non-HFC fluorinated gases (other than NF3, which is addressed separately) to determine whether regulation of such gases should be moved downstream to the point of emission. The Administrator is required to examine a number of factors, including the environmental effectiveness, cost effectiveness, and administrative feasibility of changing the point of regulation. The amendment gives the Administrator discretion to change the point of regulation for some or all non-HFC, non-NF3 fluorinated gases by rule if, based on the assessment, the Administrator determines that such gases can be best regulated downstream. This would be accomplished by changing the definition of covered entity under section 700(13)(C) with respect to such fluorinated gases and establishing other requirements that may be necessary to ensure compliance by relevant entities. Section 721(h) does not give the Administrator authority to change the point of regulation with respect to emissions of NF3.

Amendment offered by Rep. Stupak: Agreed to by a recorded vote, 33–20. This amendment grants cease-and-desist authority to the Federal Energy Regulatory Commission under the Federal Power Act, Natural Gas Act, and Natural Gas Policy Act to prevent violations of these Acts.

Amendment offered by Rep. Hill: Agreed to by a voice vote. This amendment modifies new Clean Air Act section 711(d) regarding the procedure the Administrator would be required to follow in deciding whether to list a substance as a greenhouse gas. As amended, prior to making a determination regarding the listing of a substance as a greenhouse gas, section 711(d) would require the Administrator to notify the Science Advisory Board (SAB), consider written recommendations from the SAB, and consult with the SAB. The SAB would be required to formulate recommendations regarding such determination, subject to a peer review process, and submit those recommendations to the Administrator.

Thursday, May 21, 2009. The Committee approved the following 9 amendments during consideration of H.R. 2454:

Amendment offered by Rep. Space: Agreed to by a voice vote. This amendment modifies new Clean Air Act sections 783 and 784 regarding the allocation of allowances to electricity and natural gas local distribution companies, clarifying and strengthening provisions to ensure that the allowances are used for the benefit of retail ratepayers. Changes to sections 783(b)(1) and 784(b)(1) clarify that allowances are distributed to local distribution companies "for the benefit of retail ratepayers." Changes to sections 783(b)(7) and 784(b)(7) require that the Administrator's audits of local distribution companies' use of allowances ensure that the allowances have been used exclusively for the benefit of retail ratepayers.

Amendment offered by Rep. Butterfield: Agreed to by a voice vote. This amendment modifies the provisions governing emission

standards for heavy-duty motor vehicles and engines and non-road vehicles and engines in section 221. With regard to heavy-duty vehicles and engines, the amendment provides adequate stability and lead-time for implementation of the standards, ensuring that standards apply for a period no less than 3 model years beginning no earlier than the model year commencing 4 years after such regulations are promulgated. The amendment also included provisions to ensure that heavy-duty vehicles and engines are not doubly regulated. With regard to nonroad vehicles and engines, the amendment directs the Administrator to focus initially on classes or categories of new nonroad vehicles or engines that both contribute significantly to the total emissions of greenhouse gases from nonroad engines and vehicles and provide the greatest potential for significant and cost-effective reductions in emissions of greenhouse gases.

Amendment offered by Rep. Braley: Agreed to by voice vote. This amendment adds renewable fuel pipelines to the list of projects and technologies available for loan guarantees under Title XXII of the Energy Policy Act of 2005.

Amendment offered by Rep. Weiner: Agreed to by voice vote, as amended. This amendment directs the Department of Energy and the Environmental Protection Agency in carrying out the Energy Star program to include consideration of prototype products, consider ways of providing more detailed comparative information among Energy Star products, review product qualifications on a regular basis, update qualifications as necessary, and provide proof of performance through testing of products purchased in the market.

Amendment offered by Rep. Buyer: Agreed to by voice vote. This amendment adopts a standard requiring utilities (that sell in excess of 4,000,000 megawatt hours of electricity) to interconnect with and to provide net metering of power deliveries to and receipts from Federal agencies that own, operate or site facilities generating renewable energy. The net metering service is to be offered to such Federal agencies on the basis of non-discriminatory time-sensitive rates.

Amendment offered by Rep. Sutton: Agreed to by a recorded vote, 39–18. This amendment would require recipients of emission allowances or funding under the Act to provide reasonable assurances that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by the federal government pursuant to this Act will be paid at least prevailing wages as determined by the Secretary of Labor in accordance with what is commonly known as the Davis-Bacon Act (subchapter IV of chapter 31 of title 40, United States Code). The provisions would not apply, however, to retrofitting of any residential building or of specified nonresidential buildings.

Amendment offered by Rep. Inslee: Agreed to by voice vote. This amendment amends Title XVII of the Energy Policy Act of 2005 to extend the loan guarantee authority in that Title to cover the development, construction, or integration of high-efficiency or superconductive high-voltage electricity transmission technologies. It also provides such loan guarantees for manufacturing plants producing such technologies. It separately authorizes the Secretary of Energy to make grants for up to 50 percent of the cost of the first

project incorporating such technologies, up to a maximum of $100,000,000 during Fiscal Year 2010.

Amendment offered by Rep. Space: Agreed to by voice vote. This amendment modifies the criteria for determining whether emissions reductions achieved by an offset project are additional. The underlying text provides in part that a reduction in greenhouse gas emissions or a sequestration of greenhouse gases would be considered additional only if it resulted from an activity that began after January 1, 2009, or began after January 1, 2001, and had been registered under an approved early offset program. The amendment adds a second exception to the January 1, 2009, date by providing that with respect to activities that are readily reversible, the Administrator may set an alternative date between January 1, 2001, and January 1, 2009, if the Administrator determines that setting an alternative date may produce an environmental benefit by removing an incentive to cease and then reinitiate activities that began prior to January 1, 2009.

Managers Amendment: Agreed to by voice vote. This amendment includes a number of changes. It changes the mechanism for distributing allowance proceeds to consumers by amending new section 789 of the Clean Air Act and directing the Secretary of the Treasury (rather than the President) to provide tax refunds on a per capita basis using funds deposited in the Climate Change Consumer Fund from the sale of allowances.

This amendment strikes section 432(j).

This amendment amends new section 782(m) of the Clean Air Act and section 480 of ACES Act by modifying the method of using allowance value to support Natural Resource Adaptation. Instead of auctioning all allowances allocated to this purpose, under the amendment, states will receive allowances directly for specified purposes. The changes in percentages reflect the division of allowance value into two components (direct allocation to states and auctioning of other allowances), but does not change the amount of total allowance value distributed to specific purposes under this section. This amendment also changes the provision in section 480 regarding appropriations.

This amendment amends section 453 in several ways, including: adding a requirement for state climate adaptation plans; adding section 453(d) and other provisions regarding projects to reduce flood events; and adding section 453(g) to state Congress's intent that emission allowances distributed under subpart E of Title IV should be used to supplement, not replace, existing sources of funding.

This amendment amends certain market oversight provisions added to the Federal Power Act by this bill.

The amendment modifies the definition of "distributed renewable generation facility" in section 101 of the Act (the Combined Efficiency and Renewable Electricity Standard). The amendment expands the definition to include facilities that are no greater than 4 megawatts in capacity, are placed in service after the date of enactment, and generate electricity from a renewable energy resource other than by means of combustion.

This amendment modifies new section 786(e) of the Clean Air Act regarding limitations on allowances provided for the commercial deployment of carbon capture and storage technology.

This amendment makes technical modifications to new section 619 of the Clean Air Act.

This amendment makes technical modifications to new section 764 of the Clean Air Act and adds phosphate to a provision regarding treatment of data for metals.

This amendment makes technical corrections to new section 782(e) regarding the allocation of allowances to trade-vulnerable industries.

This amendment adds clarifying language to section 144(d)(1).

This amendment modifies new section 216A(a) of the Federal Power Act to provide greater specificity regarding the type of higher efficiency transmission conductors that should be considered in the transmission planning process.

This amendment adds a new section 794 to the Clean Air Act that requires the Comptroller General to prepare biannual reviews of the programs administered by the Federal Government that distribute emission allowances or funds from Federal auctions of allowances.

This amendment makes minor modifications to allowance allocation formulas in section 782(f) and (p).

This amendment adds section 205, which amends section 453(c)(1) of the Energy Independence and Security Act of 2007, regarding energy efficiency for data center buildings.

This amendment makes technical corrections to new section 821 of the Clean Air Act.

This amendment modifies new section 32920 of title 49, U.S.C., regarding open fuel standard for vehicles.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.

(a) * * *

(b) TABLE OF CONTENTS.—

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TITLE VI—MISCELLANEOUS PROVISIONS

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Sec. 610. Combined efficiency and renewable electricity standard.

* * * * * * *

TITLE I—RETAIL REGULATORY POLICIES FOR ELECTRIC UTILITIES

* * * * * * *

Subtitle B—Standards For Electric Utilities

SEC. 111. CONSIDERATION AND DETERMINATION RESPECTING CERTAIN RATEMAKING STANDARDS.

(a) * * *

* * * * * * *

(d) ESTABLISHMENT.—The following Federal standards are hereby established:

(1) * * *

* * * * * * *

(20) PLUG-IN ELECTRIC DRIVE VEHICLE INFRASTRUCTURE.—

(A) UTILITY PLAN FOR INFRASTRUCTURE.—Each electric utility shall develop a plan to support the use of plug-in electric drive vehicles, including heavy-duty hybrid electric vehicles. The plan may provide for deployment of electrical charging stations in public or private locations, including street parking, parking garages, parking lots, homes, gas stations, and highway rest stops. Any such plan may also include—

(i) battery exchange, fast charging infrastructure and other services;

(ii) triggers for infrastructure deployment based upon market penetration of plug-in electric drive vehicles; and

(iii) such other elements as the State determines necessary to support plug-in electric drive vehicles.

Each plan under this paragraph shall provide for the deployment of the charging infrastructure or other infrastructure necessary to adequately support the use of plug-in electric drive vehicles.

(B) SUPPORT REQUIREMENTS.—Each State regulatory authority (in the case of each electric utility for which it has ratemaking authority) and each utility (in the case of a nonregulated utility) shall—

(i) require that charging infrastructure deployed is interoperable with products of all auto manufacturers to the extent possible; and

(ii) consider adopting minimum requirements for deployment of electrical charging infrastructure and other appropriate requirements necessary to support the use of plug-in electric drive vehicles.

(C) COST RECOVERY.—Each State regulatory authority (in the case of each electric utility for which it has ratemaking authority) and each utility (in the case of a nonregulated utility) shall consider whether, and to what extent, to allow cost recovery for plans and implementation of plans.

(D) SMART GRID INTEGRATION.—The State regulatory authority (in the case of each electric utility for which it has ratemaking authority) and each utility (in the case of a nonregulated utility) shall, in accordance with regulations issued by the Federal Energy Regulatory Commission pur-

suant to section 1305(d) of the Energy Independence and Security Act of 2007—

(i) establish any appropriate protocols and standards for integrating plug-in electric drive vehicles into an electrical distribution system, including Smart Grid systems and devices as described in title XIII of the Energy Independence and Security Act of 2007;

(ii) include, to the extent feasible, the ability for each plug-in electric drive vehicle to be identified individually and to be associated with its owner's electric utility account, regardless of the location that the vehicle is plugged in, for purposes of appropriate billing for any electricity required to charge the vehicle's batteries as well as any crediting for electricity provided to the electric utility from the vehicle's batteries; and

(iii) review the determination made in response to section 1252 of the Energy Policy Act of 2005 in light of this section, including whether time-of-use pricing should be employed to enable the use of plug-in electric drive vehicles to contribute to meeting peak-load and ancillary service power needs.

SEC. 112. OBLIGATIONS TO CONSIDER AND DETERMINE.

(a) * * *

(b) TIME LIMITATIONS.—(1) * * *

* * * * * * *

(7)(A) Not later than 3 years after the date of enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standard established by paragraph (20) of section 111(d).

(B) Not later than 4 years after the date of enactment of the this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to the standard established by paragraph (20) of section 111(d).

(c) FAILURE TO COMPLY.—Each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall undertake the consideration, and make the determination, referred to in section 111 with respect to each standard established by section 111(d) in the first rate proceeding commenced after the date three years after the date of enactment of this Act respecting the rates of such utility if such State regulatory authority or nonregulated electric utility has not, before such date, complied with subsection (b)(2) with respect to such standard. In the case of each standard established by paragraphs (11) through (13) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs (11) through (13). In the case of the standard established by paragraph (14) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such para-

graph (14). In the case of the standard established by paragraph (15), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of paragraph (15). In the case of the standards established by paragraphs (16) through (19) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs. *In the case of the standards established by paragraph (20) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraph.*

(d) PRIOR STATE ACTIONS.—Subsections (b) and (c) of this section shall not apply to the standards established by paragraphs (11) through (13) and paragraphs (16) through [(19)] *(20)* of section 111(d) in the case of any electric utility in a State if, before the enactment of this subsection—

(1) * * *

* * * * * * *

SEC. 113. ADOPTION OF CERTAIN STANDARDS.

(a) * * *

(b) ESTABLISHMENT.—The following Federal standards are hereby established:

(1) * * *

* * * * * * *

(6) NET METERING FOR FEDERAL AGENCIES.—Each electric utility shall offer to arrange (either directly or through a third party) to make interconnection and net metering available to Federal Government agencies, offices, or facilities in accordance with the requirements of section 115(j). The standard under this paragraph shall apply only to electric utilities that sold over 4,000,000 megawatt hours of electricity in the preceding year to the ultimate consumers thereof. In the case of a standard under this paragraph, a period of 1 year after the date of the enactment of this section shall be substituted for the 2-year period referred to in other provisions of this section.

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SEC. 115. SPECIAL RULES FOR STANDARDS.

(a) * * *

* * * * * * *

(j) NET METERING FOR FEDERAL AGENCIES.—(1) The standard under paragraph (6) of section 113(b) shall require that rates and charges and contract terms and conditions for the sale of electric energy to the Federal Government or agency shall be the same as the rates and charges and contract terms and conditions that would be applicable if the agency did not own or operate a qualified generation unit and use a net metering system.

(2)(A) The standard under paragraph (6) of section 113(b) shall require that each electric utility shall arrange to provide to the Government office or agency that qualifies for net metering an electrical energy meter capable of net metering and measuring, to the maximum extent practicable, the flow of electricity to or from the cus-

tomer, using a single meter and single register, the cost of which shall be recovered from the customer.

(B) In a case in which it is not practicable to provide a meter under subparagraph (A), the utility (either directly or through a third party) shall, at the expense of the utility install 1 or more of those electric energy meters.

(3)(A) The standard under paragraph (6) of section 113(b) shall require that each electric utility shall calculate the electric energy consumption for the Government office or agency using a net metering system that meets the requirements of this subsection and paragraph (6) of section 113(b) and shall measure the net electricity produced or consumed during the billing period using the metering installed in accordance with this paragraph.

(B) If the electricity supplied by the retail electric supplier exceeds the electricity generated by the Government office or agency during the billing period, the Government office or agency shall be billed for the net electric energy supplied by the retail electric supplier in accordance with normal billing practices.

(C) If electric energy generated by the Government office or agency exceeds the electric energy supplied by the retail electric supplier during the billing period, the Government office or agency shall be billed for the appropriate customer charges for that billing period and credited for the excess electric energy generated during the billing period, with the credit appearing as a kilowatt-hour credit on the bill for the following billing period.

(D) Any kilowatt-hour credits provided to the Government office or agency as provided in this subsection shall be applied to the Government office or agency electric energy consumption on the following billing period bill (except for a billing period that ends in the next calendar year). At the beginning of each calendar year, any unused kilowatt-hour credits remaining from the preceding year will carry over to the new year.

(4) The standard under paragraph (6) of section 113(b) shall require that each electric utility shall offer a meter and retail billing arrangement that has time-differentiated rates. The kilowatt-hour credit shall be based on the ratio representing the difference in retail rates for each time-of-use rate, or the credits shall be reflected on the bill of the Government office or agency as a monetary credit reflecting retail rates at the time of generation of the electric energy by the customer-generator.

(5) The standard under paragraph (6) of section 113(b) shall require that the qualified generation unit, interconnection standards, and net metering system used by the Government office or agency shall meet all applicable safety and performance and reliability standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, and the American National Standards Institute.

(6) The standard under paragraph (6) of section 113(b) shall require that electric utilities shall not make additional charges, including standby charges, for equipment or services for safety or performance that are in addition to those necessary to meet the other standards and requirements of this subsection and paragraph (6) of section 113(b).

(7) For purposes of this subsection and paragraph (6) of section 113(b):

(A) The term "Government" means any office, facility, or agency of the Federal Government.

(B) The term "customer-generator" means the owner or operator of a electricity generation unit.

(C) The term "electric generation unit" means any renewable electric generation unit that is owned, operated, or sited on a Federal Government facility.

(D) The term "net metering" means the process of—

(i) measuring the difference between the electricity supplied to a customer-generator and the electricity generated by the customer-generator that is delivered to a utility at the same point of interconnection during an applicable billing period; and

(ii) providing an energy credit to the customer-generator in the form of a kilowatt-hour credit for each kilowatt-hour of electricity produced by the customer-generator from an electric generation unit.

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TITLE II—CERTAIN FEDERAL ENERGY REGULATORY COMMISSION AND DEPARTMENT OF ENERGY AUTHORITIES

* * * * * * *

SEC. 210. COGENERATION AND SMALL, POWER PRODUCTION.

(a) * * *

* * * * * * *

(o) CLARIFICATION OF STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.—Notwithstanding any other provision of this Act or the Federal Power Act, a State legislature or regulatory authority may set the rates for a sale of electric energy by a facility generating electric energy from renewable energy sources pursuant to a State-approved production incentive program under which the facility voluntarily sells electric energy. For purposes of this subsection, "State-approved production incentive program" means a requirement imposed pursuant to State law, or by a State regulatory authority acting within its authority under State law, that an electric utility purchase renewable energy (as defined in section 609 of this Act) at a specified rate.

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TITLE VI—MISCELLANEOUS PROVISIONS

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SEC. 610. COMBINED EFFICIENCY AND RENEWABLE ELECTRICITY STANDARD.

(a) DEFINITIONS.—For purposes of this section:

(1) CHP SAVINGS.—The term "CHP savings" means—

(A) CHP system savings from a combined heat and power system that commences operation after the date of enactment of this section; and

(B) the increase in CHP system savings from, at any time after the date of the enactment of this section, upgrading, replacing, expanding, or increasing the utilization of a combined heat and power system that commenced operation on or before the date of enactment of this section.

(2) CHP SYSTEM SAVINGS.—The term "CHP system savings" means the electric output, and the electricity saved due to the mechanical output, of a combined heat and power system, adjusted to reflect any increase in fuel consumption by that system as compared to the fuel that would have been required to produce an equivalent useful thermal energy output in a separate thermal-only system.

(3) COMBINED HEAT AND POWER SYSTEM.—The term "combined heat and power system" means a system that uses the same energy source both for the generation of electrical or mechanical power and the production of steam or another form of useful thermal energy, provided that—

(A) the system meets such requirements relating to efficiency and other operating characteristics as the Commission may promulgate by regulation; and

(B) the net sales of electricity by the facility to customers not consuming the thermal output from that facility will not exceed 50 percent of total annual electric generation by the facility.

(4) CUSTOMER FACILITY SAVINGS.—The term "customer facility savings" means a reduction in end-use electricity consumption (including recycled energy savings) at a facility of an end-use consumer of electricity served by a retail electric supplier, as compared to—

(A) in the case of a new facility, consumption at a reference facility of average efficiency;

(B) in the case of an existing facility, consumption at such facility during a base period, except as provided in subparagraphs (C) and (D);

(C) in the case of new equipment that replaces existing equipment with remaining useful life, the projected consumption of the existing equipment for the remaining useful life of such equipment, and thereafter, consumption of new equipment of average efficiency of the same equipment type; and

(D) in the case of new equipment that replaces existing equipment at the end of the useful life of the existing equipment, consumption by new equipment of average efficiency of the same equipment type.

(5) DISTRIBUTED RENEWABLE GENERATION FACILITY.—The term "distributed renewable generation facility" means a facility that—

(A) generates renewable electricity;

(B) primarily serves 1 or more electricity consumers at or near the facility site; and

(C) is no greater than—

(i) 2 megawatts in capacity; or

(ii) 4 megawatts in capacity, in the case of a facility that is placed in service after the date of enactment of this section and generates electricity from a renewable energy resource other than by means of combustion.

(6) ELECTRICITY SAVINGS.—The term "electricity savings" means reductions in electricity consumption, relative to business-as-usual projections, achieved through measures implemented after the date of enactment of this section, limited to—

(A) customer facility savings of electricity, adjusted to reflect any associated increase in fuel consumption at the facility;

(B) reductions in distribution system losses of electricity achieved by a retail electricity distributor, as compared to losses attributable to new or replacement distribution system equipment of average efficiency;

(C) CHP savings; and

(D) fuel cell savings.

(7) FEDERAL LAND.—The term "Federal land" means land owned by the United States, other than land held in trust for an Indian or Indian tribe.

(8) FEDERAL RENEWABLE ELECTRICITY CREDIT.—The term "Federal renewable electricity credit" means a credit, representing one megawatt hour of renewable electricity, issued pursuant to subsection (e).

(9) FUEL CELL.—The term "fuel cell" means a device that directly converts the chemical energy of a fuel and an oxidant into electricity by electrochemical processes occurring at separate electrodes in the device.

(10) FUEL CELL SAVINGS.—The term "fuel cell savings" means the electricity saved by a fuel cell that is installed after the date of enactment of this section, or by upgrading a fuel cell that commenced operation on or before the date of enactment of this section, as a result of the greater efficiency with which the fuel cell transforms fuel into electricity as compared with sources of electricity delivered through the grid, provided that—

(A) the fuel cell meets such requirements relating to efficiency and other operating characteristics as the Commission may promulgate by regulation; and

(B) the net sales of electricity from the fuel cell to customers not consuming the thermal output from the fuel cell, if any, do not exceed 50 percent of the total annual electricity generation by the fuel cell.

(11) HIGH CONSERVATION PRIORITY LAND.—The term "high conservation priority land" means land that is not Federal land and is—

(A) globally or State ranked as critically imperiled or imperiled under a State Natural Heritage Program; or

(B) old-growth or late-successional forest, as identified by the office of the relevant State Forester or relevant State agency with regulatory jurisdiction over forestry activities.

(12) OTHER QUALIFYING ENERGY RESOURCE.—The term "other qualifying energy resource" means any of the following:

(A) Landfill gas.

(B) Wastewater treatment gas.

(C) Coal mine methane used to generate electricity at or near the mine mouth.

(D) Qualified waste-to-energy.

(13) QUALIFIED HYDROPOWER.—The term "qualified hydropower" means—

(A) energy produced from increased efficiency achieved, or additions of capacity made, on or after January 1, 1992, at a hydroelectric facility that was placed in service before that date and does not include additional energy generated as a result of operational changes not directly associated with efficiency improvements or capacity additions; or

(B) energy produced from generating capacity added to a dam on or after January 1, 1992, provided that the Commission certifies that—

(i) the dam was placed in service before the date of the enactment of this section and was operated for flood control, navigation, or water supply purposes and was not producing hydroelectric power prior to the addition of such capacity;

(ii) the hydroelectric project installed on the dam is licensed (or is exempt from licensing) by the Commission and is in compliance with the terms and conditions of the license or exemption, and with other applicable legal requirements for the protection of environmental quality, including applicable fish passage requirements; and

(iii) the hydroelectric project installed on the dam is operated so that the water surface elevation at any given location and time that would have occurred in the absence of the hydroelectric project is maintained, subject to any license or exemption requirements that require changes in water surface elevation for the purpose of improving the environmental quality of the affected waterway.

(14) QUALIFIED WASTE-TO-ENERGY.—The term "qualified waste-to-energy" means energy from the combustion of municipal solid waste or construction, demolition, or disaster debris, or from the gasification or pyrolization of such waste or debris and the combustion of the resulting gas at the same facility, provided that—

(A) such term shall include only the energy derived from the non-fossil biogenic portion of such waste or debris;

(B) the Commission determines, with the concurrence of the Administrator of the Environmental Protection Agency, that the total lifecycle greenhouse gas emissions attributable to the generation of electricity from such waste or debris are lower than those attributable to the likely alternative method of disposing of such waste or debris; and

(C) the owner or operator of the facility generating electricity from such energy provides to the Commission, on an annual basis—

(i) a certification that the facility is in compliance with all applicable State and Federal environmental permits;

(ii) in the case of a facility that commenced operation before the date of enactment of this section, a certification that the facility meets emissions standards promulgated under sections 112 or 129 of the Clean Air Act (42 U.S.C. 7412 or 7429) that apply as of the date of enactment of this section to new facilities within the relevant source category; and

(iii) in the case of the combustion, pyrolization, or gasification of municipal solid waste, a certification that each local government unit from which such waste originates operates, participates in the operation of, contracts for, or otherwise provides for, recycling services for its residents.

(15) RECYCLED ENERGY SAVINGS.—The term "recycled energy savings" means a reduction in electricity consumption that results from a modification of an industrial or commercial system that commenced operation before the date of enactment of this section, in order to recapture electrical, mechanical, or thermal energy that would otherwise be wasted.

(16) RENEWABLE BIOMASS.—The term "renewable biomass" means any of the following:

(A) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 1, 2009.

(B) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.

(C) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not municipal solid waste, recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).

(D) Animal waste or animal byproducts, including products of animal waste digesters.

(E) Algae.

(F) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road, electric transmission line, utility tower, or water supply line.

(G) Residues from or byproducts of milled logs.

(H) Any of the following removed from forested land that is not Federal and is not high conservation priority land:

(i) Trees, brush, slash, residues, interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established—

(I) prior to January 1, 2009; or

(II) on land that, as of January 1, 2009, was cultivated or fallow and non-forested.

(ii) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the

purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation.

(iii) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types.

(iv) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees.

(I) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are—

(i) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or mature forest stands, components of the National Landscape Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas, or Wild and Scenic Rivers corridors;

(ii) harvested in environmentally sustainable quantities, as determined by the appropriate Federal land manager; and

(iii) harvested in accordance with Federal and State law and applicable land management plans.

(17) RENEWABLE ELECTRICITY.—The term "renewable electricity" means electricity generated (including by means of a fuel cell) from a renewable energy resource or other qualifying energy resources.

(18) RENEWABLE ENERGY RESOURCE.—The term "renewable energy resource" means each of the following:

(A) Wind energy.

(B) Solar energy.

(C) Geothermal energy.

(D) Renewable biomass.

(E) Biogas derived exclusively from renewable biomass.

(F) Biofuels derived exclusively from renewable biomass.

(G) Qualified hydropower.

(H) Marine and hydrokinetic renewable energy, as that term is defined in section 632 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17211).

(19) RETAIL ELECTRIC SUPPLIER.—

(A) IN GENERAL.—The term "retail electric supplier" means, for any given year, an electric utility that sold not less than 4,000,000 megawatt hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year.

(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether an electric utility qualifies as a retail electric supplier under subparagraph (A)—

(i) the sales of any affiliate of an electric utility to electric consumers, other than sales to the affiliate's lessees or tenants, for purposes other than resale shall be considered to be sales of such electric utility; and

(ii) sales by any electric utility to an affiliate, lessee, or tenant of such electric utility shall not be treated as sales to electric consumers.

(C) AFFILIATE.—For purposes of this paragraph, the term "affiliate" when used in relation to a person, means another person that directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, such person, as determined under regulations promulgated by the Commission.

(20) RETAIL ELECTRIC SUPPLIER'S BASE AMOUNT.—The term "retail electric supplier's base amount" means the total amount of electric energy sold by the retail electric supplier, expressed in megawatt hours, to electric customers for purposes other than resale during the relevant calendar year, excluding—

(A) electricity generated by a hydroelectric facility that is not qualified hydropower;

(B) electricity generated by a nuclear generating unit placed in service after the date of enactment of this section; and

(C) the proportion of electricity generated by a fossil-fueled generating unit that is equal to the proportion of greenhouse gases produced by such unit that are captured and geologically sequestered.

(21) RETIRE AND RETIREMENT.—The terms "retire" and "retirement" with respect to a Federal renewable electricity credit, means to disqualify such credit for any subsequent use under this section, regardless of whether the use is a sale, transfer, exchange, or submission in satisfaction of a compliance obligation.

(22) THIRD-PARTY EFFICIENCY PROVIDER.—The term "third-party efficiency provider" means any retailer, building owner, energy service company, financial institution or other commercial, industrial or nonprofit entity that is capable of providing electricity savings in accordance with the requirements of this section.

(23) TOTAL ANNUAL ELECTRICITY SAVINGS.—The term "total annual electricity savings" means electricity savings during a specified calendar year from measures that were placed into service since the date of the enactment of this section, taking into account verified measure lifetimes or verified annual savings attrition rates, as determined in accordance with such regulations as the Commission may promulgate and measured in megawatt hours.

(b) ANNUAL COMPLIANCE OBLIGATION.—

(1) IN GENERAL.—For each of calendar years 2012 through 2039, not later than March 31 of the following calendar year, each retail electric supplier shall submit to the Commission an amount of Federal renewable electricity credits and dem-

onstrated total annual electricity savings that, in the aggregate, is equal to such retail electric supplier's annual combined target as set forth in subsection (d), except as otherwise provided in subsection (g).

(2) DEMONSTRATION OF SAVINGS.—For purposes of this subsection, submission of demonstrated total annual electricity savings means submission of a report that demonstrates, in accordance with the requirements of subsection (f), the total annual electricity savings achieved by the retail electric supplier within the relevant compliance year.

(3) RENEWABLE ELECTRICITY CREDITS PORTION.—Except as provided in paragraph (4), each retail electric supplier must submit Federal renewable electricity credits equal to at least three quarters of the retail electric supplier's annual combined target.

(4) STATE PETITION.—

(A) IN GENERAL.—Upon written request from the Governor of any State (including, for purposes of this paragraph, the Mayor of the District of Columbia), the Commission shall increase, to not more than two fifths, the proportion of the annual combined targets of retail electric suppliers located within such State that may be met through submission of demonstrated total annual electricity savings, provided that such increase shall be effective only with regard to the portion of a retail electric supplier's annual combined target that is attributable to electricity sales within such State.

(B) CONTENTS.—A Governor's request under this paragraph shall include an explanation of the Governor's rationale for determining, after consultation with the relevant State regulatory authority and other retail electricity ratemaking authorities within the State, to make such request. The request shall specify the maximum proportion of annual combined targets (not more than two fifths) that can be met through demonstrated total annual electricity savings, and the period for which such proportion shall be effective.

(C) REVISION.—The Governor of any State may, after consultation with the relevant State regulatory authority and other retail electricity ratemaking authorities within the State, submit a written request for revocation or revision of a previous request submitted under this paragraph. The Commission shall grant such request, provided that—

(i) any revocation or revision shall not apply to the combined annual target for any year that is any earlier than 2 calendar years after the calendar year in which such request is submitted, so as to provide retail electric suppliers with adequate notice of such change; and

(ii) any revision shall meet the requirements of subparagraph (A).

(c) ESTABLISHMENT OF PROGRAM.—Not later than 1 year after the date of enactment of this section, the Commission shall promulgate regulations to implement and enforce the requirements of this section. In promulgating such regulations, the Commission shall, to the extent practicable—

(1) preserve the integrity, and incorporate best practices, of existing State renewable electricity and energy efficiency programs;

(2) rely upon existing and emerging State or regional tracking systems that issue and track non-Federal renewable electricity credits; and

(3) cooperate with the States to facilitate coordination between State and Federal renewable electricity and energy efficiency programs and to minimize administrative burdens and costs to retail electric suppliers.

(d) ANNUAL COMPLIANCE REQUIREMENT.—

(1) ANNUAL COMBINED TARGETS.—For each of calendar years 2012 through 2039, a retail electric supplier's annual combined target shall be the product of—

(A) the required annual percentage for such year, as set forth in paragraph (2); and

(B) the retail electric supplier's base amount for such year.

(2) REQUIRED ANNUAL PERCENTAGE.—For each of calendar years 2012 through 2039, the required annual percentage shall be as follows:

Calendar year	***Required annual percentage***
2012	*6.0*
2013	*6.0*
2014	*9.5*
2015	*9.5*
2016	*13.0*
2017	*13.0*
2018	*16.5*
2019	*16.5*
2020	*20.0*
2021 through 2039	*20.0*

(e) FEDERAL RENEWABLE ELECTRICITY CREDITS.—

(1) IN GENERAL.—The regulations promulgated under this section shall include provisions governing the issuance, tracking, and verification of Federal renewable electricity credits. Except as provided in paragraphs (2), (3), and (4) of this subsection, the Commission shall issue to each generator of renewable electricity, 1 Federal renewable electricity credit for each megawatt hour of renewable electricity generated by such generator after December 31, 2011. The Commission shall assign a unique serial number to each Federal renewable electricity credit.

(2) GENERATION FROM CERTAIN STATE RENEWABLE ELECTRICITY PROGRAMS.—Where renewable electricity is generated with the support of payments from a retail electric supplier pursuant to a State renewable electricity program (whether through State alternative compliance payments or through payments to a State renewable electricity procurement fund or entity), the Commission shall issue Federal renewable electricity credits to such retail electric supplier for the proportion of the relevant renewable electricity generation that is attributable to the retail electric supplier's payments, as determined pursuant to regulations issued by the Commission. For any remaining portion of

the relevant renewable electricity generation, the Commission shall issue Federal renewable electricity credits to the generator, as provided in paragraph (1), except that in no event shall more than 1 Federal renewable electricity credit be issued for the same megawatt hour of electricity. In determining how Federal renewable electricity credits will be apportioned among retail electric suppliers and generators in such circumstances, the Commission shall consider information and guidance furnished by the relevant State or States.

(3) CERTAIN POWER SALES CONTRACTS.—When a generator has sold renewable electricity to a retail electric supplier under a contract for power from a facility placed in service before the date of enactment of this section, and the contract does not provide for the determination of ownership of the Federal renewable electricity credits associated with such generation, the Commission shall issue such Federal renewable electricity credits to the retail electric supplier for the duration of the contract.

(4) CREDIT MULTIPLIER FOR DISTRIBUTED RENEWABLE GENERATION.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the Commission shall issue 3 Federal renewable electricity credits for each megawatt hour of renewable electricity generated by a distributed renewable generation facility.

(B) ADJUSTMENT.—Except as provided in subparagraph (C), not later than January 1, 2014, and not less frequently than every 4 years thereafter, the Commission shall review the effect of this paragraph and shall, as necessary, reduce the number of Federal renewable electricity credits per megawatt hour issued under this paragraph for any given energy source or technology, but not below 1, to ensure that such number is no higher than the Commission determines is necessary to make distributed renewable generation facilities using such source or technology cost competitive with other sources of renewable electricity generation.

(C) FACILITIES PLACED IN SERVICE AFTER ENACTMENT.—For any distributed renewable generation facility placed in service after the date of enactment of this section, subparagraph (B) shall not apply for the first 10 years after the date on which the facility is placed in service. For each year during such 10-year period, the Commission shall issue to the facility the same number of Federal renewable electricity credits per megawatt hour as are issued to that facility in the year in which such facility is placed in service. After such 10-year period, the Commission shall issue Federal renewable electricity credits to the facility in accordance with the current multiplier as determined pursuant to subparagraph (B).

(5) CREDITS BASED ON QUALIFIED HYDROPOWER.—For purposes of this subsection, the number of Federal renewable electricity credits issued for qualified hydropower shall be calculated—

(A) based solely on the increase in average annual generation directly resulting from the efficiency improvements

or capacity additions described in subsection (a)(13)(A); and

(B) using the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility, as certified by the Commission.

(6) GENERATION FROM MIXED RENEWABLE AND NONRENEWABLE RESOURCES.—If electricity is generated using both a renewable energy resource or other qualifying energy resource and an energy source that is not a renewable energy resource or other qualifying energy resource (as, for example, in the case of co-firing of renewable biomass and fossil fuel), the Commission shall issue Federal renewable electricity credits based on the proportion of the electricity that is attributable to the renewable energy resource or other qualifying energy resource.

(7) PROHIBITION AGAINST DOUBLE-COUNTING.—Except as provided in paragraph (4) of this subsection, the Commission shall ensure that no more than 1 Federal renewable electricity credit will be issued for any megawatt hour of renewable electricity and that no Federal renewable electricity credit will be used more than once for compliance with this section.

(8) TRADING.—The lawful holder of a Federal renewable electricity credit may sell, exchange, transfer, submit for compliance in accordance with subsection (b), or submit such credit for retirement by the Commission.

(9) BANKING.—A Federal renewable electricity credit may be submitted in satisfaction of the compliance obligation set forth in subsection (b) for the compliance year in which the credit was issued or for any of the 3 immediately subsequent compliance years. The Commission shall retire any Federal renewable electricity credit that has not been retired by April 2 of the calendar year that is 3 years after the calendar year in which the credit was issued.

(10) RETIREMENT.—The Commission shall retire a Federal renewable electricity credit immediately upon submission by the lawful holder of such credit, whether in satisfaction of a compliance obligation under subsection (b) or on some other basis.

(f) ELECTRICITY SAVINGS.—

(1) STANDARDS FOR MEASUREMENT OF SAVINGS.—As part of the regulations promulgated under this section, the Commission shall prescribe standards and protocols for defining and measuring electricity savings and total annual electricity savings that can be counted towards the compliance obligation set forth in subsection (b). Such protocols and standards shall, at minimum—

(A) specify the types of energy efficiency and energy conservation measures that can be counted;

(B) require that energy consumption estimates for customer facilities or portions of facilities in the applicable base and current years be adjusted, as appropriate, to account for changes in weather, level of production, and building area;

(C) account for the useful life of measures;

(D) include deemed savings values for specific, commonly used measures;

(E) allow for savings from a program to be estimated based on extrapolation from a representative sample of participating customers;

(F) include procedures for counting CHP savings, recycled energy savings, and fuel cell savings;

(G) include procedures for counting electricity savings achieved by solar water heating and solar light pipe technology that has the capability to provide measureable data on the amount of megawatt-hours displaced;

(H) avoid double-counting of savings used for compliance with this section, including savings that are transferred pursuant to paragraph (3);

(I) ensure that, except as provided in subparagraph (K), the retail electric supplier claiming the savings played a significant role in achieving the savings (including through the activities of a designated agent of the supplier or through the purchase of transferred savings);

(J) include savings from programs administered by a retail electric supplier (or a retail electricity distributor that is not a retail electric supplier) that are funded by State, Federal, or other sources;

(K) in any State in which the State regulatory authority has designated 1 or more entities to administer electric ratepayer-funded efficiency programs approved by such State regulatory authority, provide that electricity savings achieved through such programs shall be distributed equitably among retail electric suppliers in accordance with the direction of the relevant State regulatory authority; and

(L) exclude savings achieved as a result of compliance with mandatory appliance and equipment efficiency standards or building codes.

(2) STANDARDS FOR THIRD-PARTY VERIFICATION OF SAVINGS.—The regulations promulgated under this section shall establish procedures and standards requiring third-party verification of all reported electricity savings, including requirements for accreditation of third-party verifiers to ensure that such verifiers are professionally qualified and have no conflicts of interest.

(3) TRANSFERS OF SAVINGS.—

(A) BILATERAL CONTRACTS FOR SAVINGS TRANSFERS.—Subject to the limitations of this paragraph, a retail electric supplier may use electricity savings transferred, pursuant to a bilateral contract, from another retail electric supplier, an owner of an electric distribution facility that is not a retail electric supplier, a State, or a third-party efficiency provider to meet the applicable compliance obligation under subsection (b).

(B) REQUIREMENTS.—Electricity savings transferred and used for compliance pursuant to this paragraph shall be—

(i) measured and verified in accordance with the procedures specified under this subsection;

(ii) reported in accordance with paragraph (4) of this subsection; and

(iii) achieved within the same State as is served by the retail electric supplier.

(C) REGULATORY APPROVAL.—Nothing in this paragraph shall limit or affect the authority of a State regulatory authority to require a retail electric supplier that is regulated by such authority to obtain such authority's authorization or approval of a contract for transfer of savings under this paragraph.

(4) REPORTING SAVINGS.—

(A) REQUIREMENTS.—The regulations promulgated under this section shall establish requirements governing the submission of reports to demonstrate, in accordance with the protocols and standards for measurement and third-party verification established under this subsection, the total annual electricity savings achieved by a retail electric supplier within the relevant year.

(B) REVIEW AND APPROVAL.—The Commission shall review each report submitted to the Commission by a retail electric supplier and shall exclude any electricity savings that have not been adequately demonstrated in accordance with the requirements of this subsection.

(5) STATE ADMINISTRATION.—

(A) DELEGATION OF AUTHORITY.—Upon receipt of an application from the Governor of a State (including, for purposes of this subsection, the Mayor of the District of Columbia), the Commission may delegate to the State the authority to review and verify reported electricity savings for purposes of determining demonstrated total annual electricity savings that may be counted towards a retail electric supplier's compliance obligation under subsection (b). The Commission shall make a substantive determination approving or disapproving a State application under this subparagraph, after notice and comment, within 180 days of receipt of a complete application.

(B) ALTERNATIVE MEASUREMENT AND VERIFICATION PROCEDURES AND STANDARDS.—As part of an application submitted under subparagraph (A), a State may request to use alternative measurement and verification procedures and standards to those specified in paragraphs (1) and (2), provided the State demonstrates that such alternative procedures and standards provide a level of accuracy of measurement and verification at least equivalent to the Federal procedures and standards promulgated under paragraphs (1) and (2).

(C) REVIEW OF STATE IMPLEMENTATION.—The Commission shall, not less frequently than once every 4 years, review each State's implementation of delegated authority under this paragraph to ensure conformance with the requirements of this section. The Commission may, at any time, revoke the delegation of authority under this section upon a finding that the State is not implementing its delegated responsibilities in conformity with this paragraph. As a condition of maintaining its delegated authority under this paragraph, the Commission may require a State to submit a revised application under subparagraph (A) if the Commission has—

(i) promulgated new or substantially revised measurement and verification procedures and standards under this subsection; or

(ii) otherwise substantially revised the program established under this section.

(g) ALTERNATIVE COMPLIANCE PAYMENTS.—

(1) IN GENERAL.—A retail electric supplier may satisfy the requirements of subsection (b) in whole or in part by submitting in accordance with this subsection, in lieu of each Federal renewable electricity credit or megawatt hour of demonstrated total annual electricity savings that would otherwise be due, a payment equal to $25, adjusted for inflation on January 1 of each year following calendar year 2009, in accordance with such regulations as the Commission may promulgate.

(2) PAYMENT TO STATE FUNDS.—Except as otherwise provided in this paragraph, payments made under this subsection shall be made directly to the State or States in which the retail electric supplier is located, in proportion to the portion of the retail electric supplier's base amount that is sold within each relevant State, provided that such payments are deposited directly into a fund in the State treasury established for this purpose and that the State uses such funds in accordance with paragraphs (3) and (4). If the Commission determines at any time that a State is in substantial noncompliance with paragraph (3) or (4), the Commission shall direct that any future alternative compliance payments that would otherwise be paid to such State under this subsection shall instead be paid to the Commission and deposited in the United States Treasury.

(3) STATE USE OF FUNDS.—As a condition of continued receipt of alternative compliance payments pursuant to this subsection, a State shall use such payments exclusively for the purposes of—

(A) deploying technologies that generate electricity from renewable energy resources; or

(B) implementing cost-effective energy efficiency programs to achieve electricity savings.

(4) REPORTING.—As a condition of continued receipt of alternative compliance payments pursuant to this subsection, a State shall, within 12 months of receipt of any such payments and at 12-month intervals thereafter until such payments are expended, provide a report to the Commission, in accordance with such regulations as the Commission may prescribe, giving a full accounting of the use of such payments, including a detailed description of the activities funded thereby.

(h) INFORMATION COLLECTION.—The Commission may require any retail electric supplier, renewable electricity generator, or such other entities as the Commission deems appropriate, to provide any information the Commission determines appropriate to carry out this section. Failure to submit such information or submission of false or misleading information under this subsection shall be a violation of this section.

(i) ENFORCEMENT AND JUDICIAL REVIEW.—

(1) FAILURE TO SUBMIT CREDITS OR DEMONSTRATE SAVINGS.—If any person fails to comply with the requirements of sub-

section (b) or (g), such person shall be liable to pay to the Commission a civil penalty equal to the product of—

(A) double the alternative compliance payment calculated under subsection (g)(1), and

(B) the aggregate quantity of Federal renewable electricity credits, total annual electricity savings, or equivalent alternative compliance payments that the person failed to submit in violation of the requirements of subsections (b) and (g).

(2) ENFORCEMENT.—The Commission shall assess a civil penalty under paragraph (1) in accordance with the procedures described in section 31(d) of the Federal Power Act (16 U.S.C. 823b(d)).

(3) VIOLATION OF REQUIREMENT OF REGULATIONS OR ORDERS.—Any person who violates, or fails or refuses to comply with, any requirement of a regulation promulgated or order issued under this section shall be subject to a civil penalty under section 316A(b) of the Federal Power Act (16 U.S.C. 825o–1). Such penalty shall be assessed by the Commission in the same manner as in the case of a violation referred to in section 316A(b) of such Act.

(j) JUDICIAL REVIEW.—Any person aggrieved by a final action taken by the Commission under this section, other than the assessment of a civil penalty under subsection (i), may use the procedures for review described in section 313 of the Federal Power Act (16 U.S.C. 825l). For purposes of this paragraph, references to an order in section 313 of such Act shall be deemed to refer also to all other final actions of the Commission under this section other than the assessment of a civil penalty under subsection (i).

(k) SAVINGS PROVISIONS.—Nothing in this section shall—

(1) diminish or qualify any authority of a State or political subdivision of a State to—

(A) adopt or enforce any law or regulation respecting renewable electricity or energy efficiency, including any law or regulation establishing requirements more stringent than those established by this section, provided that no such law or regulation may relieve any person of any requirement otherwise applicable under this section; or

(B) regulate the acquisition and disposition of Federal renewable electricity credits by retail electric suppliers within the jurisdiction of such State or political subdivision, including the authority to require such retail electric supplier to acquire and submit to the Secretary for retirement Federal renewable electricity credits in excess of those submitted under this section; or

(2) affect the application of, or the responsibility for compliance with, any other provision of law or regulation, including environmental and licensing requirements.

(l) SUNSET.—This section expires on December 31, 2040.

CLEAN AIR ACT

TITLE I—AIR POLLUTION PREVENTION AND CONTROL

PART A—AIR QUALITY AND EMISSION LIMITATIONS

* * * * * * *

SEC. 113. FEDERAL ENFORCEMENT.

(a) IN GENERAL.—

(1) * * *

* * * * * * *

(3) EPA ENFORCEMENT OF OTHER REQUIREMENTS.—Except for a requirement or prohibition enforceable under the preceding provisions of this subsection, whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any other requirement or prohibition of this title, section 303 of title III, title IV, title V, [or title VI,] *title VI, title VII, or title VIII* including, but not limited to, a requirement or prohibition of any rule, plan, order, waiver, or permit promulgated, issued, or approved under those provisions or titles, or for the payment of any fee owed to the United States under this Act (other than title II), the Administrator may—

(A) * * *

* * * * * * *

(b) CIVIL JUDICIAL ENFORCEMENT.—The Administrator shall, as appropriate, in the case of any person that is the owner or operator of an affected source, a major emitting facility, [or a major stationary source] *a major stationary source, or a covered EGU under title VIII*, and may, in the case of any other person, commence a civil action for a permanent or temporary injunction, or to assess and recover a civil penalty of not more than $25,000 per day for each violation, or both, in any of the following instances:

(1) * * *

(2) Whenever such person has violated, or is in violation of, any other requirement or prohibition of this title, section 303 of title III, title IV, title V, [or title VI] *title VI, title VII, or title VIII*, including, but not limited to, a requirement or prohibition of any rule, order, waiver or permit promulgated, issued, or approved under this Act, or for the payment of any fee owed the United States under this Act (other than title II).

* * * * * * *

(c) CRIMINAL PENALTIES.—(1) Any person who knowingly violates any requirement or prohibition of an applicable implementation plan (during any period of federally assumed enforcement or more than 30 days after having been notified under subsection (a)(1) by the Administrator that such person is violating such requirement or prohibition), any order under subsection (a) of this section, requirement or prohibition of section 111(e) of this title (relating to new source performance standards), section 112 of this title, section 114 of this title (relating to inspections, etc.), section 129 of this title (relating to solid waste combustion), section 165(a) of this title (relating to preconstruction requirements), an order under section 167 of this title (relating to preconstruction requirements), an order

under section 303 of title III (relating to emergency orders), section 502(a) or 503(c) of title V (relating to permits), or any requirement or prohibition of title IV (relating to acid deposition control), [or title VI (relating to stratospheric ozone control),] *title VI, title VII, or title VIII,* including a requirement of any rule, order, waiver, or permit promulgated or approved under such sections or titles, and including any requirement for the payment of any fee owed the United States under this Act (other than title II) shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not to exceed 5 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

* * * * * * *

(3) Any person who knowingly fails to pay any fee owed the United States under this title, title III, IV, V, [or VI] *VI, VII, or VIII* shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 1 year, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

* * * * * * *

(d) ADMINISTRATIVE ASSESSMENT OF CIVIL PENALTIES.—(1) The Administrator may issue an administrative order against any person assessing a civil administrative penalty of up to $25,000, per day of violation, whenever, on the basis of any available information, the Administrator finds that such person—

(A) * * *

(B) has violated or is violating any other requirement or prohibition of title I, III, IV, V, [or VI] *VI, VII, or VIII*, including, but not limited to, a requirement or prohibition of any rule, order, waiver, permit, or plan promulgated, issued, or approved under this Act, or for the payment of any fee owed the United States under this Act (other than title II); or

* * * * * * *

(f) AWARDS.—The Administrator may pay an award, not to exceed $10,000, to any person who furnishes information or services which lead to a criminal conviction or a judicial or administrative civil penalty for any violation of this title or title III, IV, V, [or VI] *VI, VII, or VIII* of this Act enforced under this section. Such payment is subject to available appropriations for such purposes as provided in annual appropriation Acts. Any officer, or employee of the United States or any State or local government who furnishes information or renders service in the performance of an official duty is ineligible for payment under this subsection. The Administrator may, by regulation, prescribe additional criteria for eligibility for such an award.

* * * * * * *

INSPECTIONS, MONITORING, AND ENTRY

SEC. 114. (a) For the purpose (i) of developing or assisting in the development of any implementation plan under section 110 or 111(d), any standard of performance under section 111, any emission standard under [section 112,, or any regulation of solid waste combustion under section 129, or any regulation under section 129 (relating to solid waste combustion), (ii)] *section 112, or any regulation of greenhouse gas emissions under title VII or VIII, (ii)* of determining whether any person is in violation of any such standard or any requirement of such a plan, or (iii) carrying out any provision of this Act (except a provision of title II with respect to a manufacturer of new motor vehicles or new motor vehicle engines)—

(1) * * *

* * * * * * *

RETENTION OF STATE AUTHORITY

SEC. 116. Except as otherwise provided in sections 119 (c), (e), and (f) (as in effect before the date of the enactment of the Clean Air Act Amendments of 1977), 209, 211(c)(4), [and 233] *233* (preempting certain State regulation [of moving sources)] *of moving sources), and 861 (preempting certain State greenhouse gas programs for a limited time)* nothing in this Act shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 111 or 112, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section. *For the purposes of this section, the phrases "standard or limitation respecting emissions of air pollutants" and "requirements respecting control or abatement of air pollution" shall include any provision to: cap greenhouse gas emissions, require surrender to the State or a political subdivision thereof of emission allowances or offset credits established or issued under this Act, and require the use of such allowances or credits as a means of demonstrating compliance with requirements established by a State or political subdivision thereof.*

* * * * * * *

TITLE II—EMISSION STANDARDS FOR MOVING SOURCES

* * * * * * *

PART A—MOTOR VEHICLE EMISSION AND FUEL STANDARDS

* * * * * * *

REGULATION OF FUELS

SEC. 211. (a) * * *

* * * * * * *

(o) RENEWABLE FUEL PROGRAM.—

(1) DEFINITIONS.—In this section:

(A) * * *

* * * * * * *

[(I) RENEWABLE BIOMASS.—The term "renewable biomass" means each of the following:

[(i) Planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to the enactment of this sentence that is either actively managed or fallow, and nonforested.

[(ii) Planted trees and tree residue from actively managed tree plantations on non-federal land cleared at any time prior to enactment of this sentence, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States.

[(iii) Animal waste material and animal byproducts.

[(iv) Slash and pre-commercial thinnings that are from non-federal forestlands, including forestlands belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States, but not forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest.

[(v) Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.

[(vi) Algae.

[(vii) Separated yard waste or food waste, including recycled cooking and trap grease.]

(I) RENEWABLE BIOMASS.—The term "renewable biomass" means any of the following:

(i) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 1, 2009.

(ii) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.

(iii) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).

(iv) Animal waste or animal byproducts, including products of animal waste digesters.

(v) Algae.

(vi) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road,

electric transmission line, utility tower, or water supply line.

(vii) Residues from or byproducts of milled logs.

(viii) Any of the following removed from forested land that is not Federal and is not high conservation priority land:

(I) Trees, brush, slash, residues, interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established—

(aa) prior to January 1, 2009; or

(bb) on land that, as of January 1, 2009, was cultivated or fallow and non-forested.

(II) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation.

(III) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types.

(IV) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees.

(ix) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are—

(I) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or mature forest stands, components of the National Landscape Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas, or Wild and Scenic Rivers corridors;

(II) harvested in environmentally sustainable quantities, as determined by the appropriate Federal land manager; and

(III) harvested in accordance with Federal and State law and applicable land management plans.

* * * * * * *

(M) HIGH CONSERVATION PRIORITY LAND.—The term "high conservation priority land" means land that is not Federal land and is—

(i) globally or State ranked as critically imperiled or imperiled under a State Natural Heritage Program; or

(ii) old-growth or late-successional forest, as identified by the office of the State Forester or relevant State agency with regulatory jurisdiction over forestry activities.

* * * * * * *

TITLE III—GENERAL

* * * * * * *

CITIZEN SUITS

SEC. 304. (a) * * *

* * * * * * *

(f) For purposes of this section, the term "emission standard or limitation under this Act" means—

(1) * * *

* * * * * * *

(3) any condition or requirement of a permit under part C of title I (relating to significant deterioration of air quality) or part D of title I (relating to nonattainment),, section 119 (relating to primary nonferrous smelter orders), any condition or requirement under an applicable implementation plan relating to transportation control measures, air quality maintenance plans, vehicle inspection and maintenance programs or vapor recovery requirements, section 211 (e) and (f) (relating to fuels and fuel additives), section 169A (relating to visibility protection), any condition or requirement under title VI (relating to ozone protection), or any requirement under section 111 or 112 (without regard to whether such requirement is expressed as an emission standard or otherwise)**[**; or**]***,*

(4) any other standard, limitation, or schedule established under any permit issued pursuant to title V or under any applicable State implementation plan approved by the Administrator, any permit term or condition, and any requirement to obtain a permit as a condition of operations**[**.**]***, or*

(5) any requirement of title VII or VIII.

* * * * * * *

GENERAL PROVISIONS RELATING TO ADMINISTRATIVE PROCEEDINGS AND JUDICIAL REVIEW

SEC. 307. (a) In connection with any determination under section 110(f), or for purposes of obtaining information under section 202(b)(4) or 211(c)(3),, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the Act (including but not limited to section 113, section 114, section 120, section 129, section 167, section 205, section 206, section 208, section 303**[**, or section 306**]** *section 306, or title VII or VIII*), the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Ad-

ministrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such paper, book, document, or information may be discussed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 202(c), or when relevant in any proceeding under this Act. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In cases of contumacy or refusal to obey a subpena served upon any person under this subparagraph, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b)(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 112, any standard of performance or requirement under section 111**[**,,**]***,* any standard under section 202 (other than a standard required to be prescribed under section 202(b)(1)), any determination under section 202(b)(5), any control or prohibition under section 211, any standard under section 231, any rule issued under section 113, 119, or under **[**section 120,**]** *section 120, any final action under title VII or VIII,* or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this Act may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 110 or section 111(d), any order under section 111(j), under section 112**[**,,**]***,* under section 119, or under section 120, or his action under section 119(c)(2) (A), (B), or (C) (as in effect before the date of enactment of the Clean Air Act Amendments of 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 114(a)(3) of this Act, or any other final action of the Administrator under this Act (including any denial or disapproval by the Administrator under title I) which is local or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action

appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

* * * * * * *

(3) If the court determines that any action of the Administrator is arbitrary, capricious, or otherwise unlawful, the court may remand such action, without vacatur, if vacatur would impair or delay protection of the environment or public health or otherwise undermine the timely achievement of the purposes of this Act.

* * * * * * *

(d)(1) This subsection applies to—

(A) * * *

* * * * * * *

[(S) the promulgation or revision of any regulation under title IV (relating to acid deposition),]

(S) the promulgation or revision of any regulation under title VII or VIII,

* * * * * * *

(7)(A) * * *

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. [If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b)).] *If a petition for reconsideration is filed, the Administrator shall take final action on such petition, including promulgation of final action either revising or determining not to revise the action for which reconsideration is sought, within 150 days after the petition is received by the Administrator or the petition shall be deemed denied for the purpose of judicial review. Such person may seek judicial review of such denial, or of any other final action, by the Administrator, in response to a petition for reconsideration, in the United States court of appeals for the appropriate circuit (as provided in subsection (b)).* Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by

the Administrator or the court for a period not to exceed three months.

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TITLE VI—STRATOSPHERIC OZONE PROTECTION

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Sec. 619. Hydrofluorocarbons (HFCs).

* * * * * * *

SEC. 605. PHASE-OUT OF PRODUCTION AND CONSUMPTION OF CLASS II SUBSTANCES.

(a) RESTRICTION OF USE OF CLASS II SUBSTANCES.—Effective January 1, 2015, it shall be unlawful for any person to introduce into interstate commerce or use any class II substance unless such substance—

(1) * * *

(2) is used and entirely consumed (except for trace quantities) in the production of other chemicals; **[**or**]**

(3) is used as a refrigerant in appliances manufactured prior to January 1, 2020**[**.**]***; or*

(4) is listed as acceptable for use as a fire suppression agent for nonresidential applications in accordance with section 612(c).

* * * * * * *

SEC. 609. SERVICING OF MOTOR VEHICLE AIR CONDITIONERS.

(a) * * *

* * * * * * *

(e) SMALL CONTAINERS OF CLASS I OR CLASS II*, GROUP I* SUBSTANCES.—Effective 2 years after the date of the enactment of the Clean Air Act Amendments of 1990, it shall be unlawful for any person to sell or distribute, or offer for sale or distribution, in interstate commerce to any person (other than a person performing service for consideration on motor vehicle air-conditioning systems in compliance with this section) any class I or class II*, group I* substance that is suitable for use as a refrigerant in a motor vehicle air-conditioning system and that is in a container which contains less than 20 pounds of such refrigerant.

(f) CLASS II, GROUP II SUBSTANCES.—

(1) REPAIR.—The Administrator may promulgate regulations establishing requirements for repair of motor vehicle air conditioners prior to adding a class II, group II substance.

(2) SMALL CONTAINERS.—(A) The Administrator may promulgate regulations establishing servicing practices and procedures for recovery of class II, group II substances from containers which contain less than 20 pounds of such class II, group II substances.

(B) Not later than 18 months after enactment of this subsection, the Administrator shall either promulgate regulations

requiring that containers which contain less than 20 pounds of a class II, group II substance be equipped with a device or technology that limits refrigerant emissions and leaks from the container and limits refrigerant emissions and leaks during the transfer of refrigerant from the container to the motor vehicle air conditioner or issue a determination that such requirements are not necessary or appropriate.

(C) Not later than 18 months after enactment of this subsection, the Administrator shall promulgate regulations establishing requirements for consumer education materials on best practices associated with the use of containers which contain less than 20 pounds of a class II, group II substance and prohibiting the sale or distribution, or offer for sale or distribution, of any class II, group II substance in any container which contains less than 20 pounds of such class II, group II substance, unless consumer education materials consistent with such requirements are displayed and available at point-of-sale locations, provided to the consumer, or included in or on the packaging of the container which contain less than 20 pounds of a class II, group II substance.

(D) The Administrator may, through rulemaking, extend the requirements established under this paragraph to containers which contain 30 pounds or less of a class II, group II substance if the Administrator determines that such action would produce significant environmental benefits.

(3) RESTRICTION OF SALES.—Effective January 1, 2014, no person may sell or distribute or offer to sell or distribute or otherwise introduce into interstate commerce any motor vehicle air conditioner refrigerant in any size container unless the substance has been found acceptable for use in a motor vehicle air conditioner under section 612.

* * * * * * *

SEC. 612. SAFE ALTERNATIVES POLICY.

(a) * * *

* * * * * * *

(e) STUDIES AND NOTIFICATION.—The Administrator shall require any person who produces a chemical substitute for a class I *or class II* substance to provide the Administrator with such person's unpublished health and safety studies on such substitute and require producers to notify the Administrator not less than 90 days before new or existing chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I *or class II* substance. This subsection shall be subject to section 114(c).

* * * * * * *

SEC. 619. HYDROFLUOROCARBONS (HFCS).

(a) TREATMENT AS CLASS II, GROUP II SUBSTANCES.—Except as otherwise provided in this section, hydrofluorocarbons shall be treated as class II substances for purposes of applying the provisions of this title. The Administrator shall establish two groups of class II substances. Class II, group I substances shall include all hydrochlorofluorocarbons (HCFCs) listed pursuant to section 602(b). Class II, group II substances shall include each of the following:

(1) Hydrofluorocarbon-23 (HFC-23).

(2) Hydrofluorocarbon-32 (HFC-32).
(3) Hydrofluorocarbon-41 (HFC-41).
(4) Hydrofluorocarbon-125 (HFC-125).
(5) Hydrofluorocarbon-134 (HFC-134).
(6) Hydrofluorocarbon-134a (HFC-134a).
(7) Hydrofluorocarbon-143 (HFC-143).
(8) Hydrofluorocarbon-143a (HFC-143a).
(9) Hydrofluorocarbon-152 (HFC-152).
(10) Hydrofluorocarbon-152a (HFC-152a).
(11) Hydrofluorocarbon-227ea (HFC-227ea).
(12) Hydrofluorocarbon-236cb (HFC-236cb).
(13) Hydrofluorocarbon-236ea (HFC-236ea).
(14) Hydrofluorocarbon-236fa (HFC-236fa).
(15) Hydrofluorocarbon-245ca (HFC-245ca).
(16) Hydrofluorocarbon-245fa (HFC-245fa).
(17) Hydrofluorocarbon-365mfc (HFC-365mfc).
(18) Hydrofluorocarbon-43-10mee (HFC-43-10mee).
(19) Hydrofluoroolefin-1234yf (HFO-1234yf).
(20) Hydrofluoroolefin-1234ze (HFO-1234ze).

Not later than 6 months after the date of enactment of this title, the Administrator shall publish an initial list of class II, group II substances, which shall include the substances listed in this subsection. The Administrator may add to the list of class II, group II substances any other substance used as a substitute for a class I or II substance if the Administrator determines that 1 metric ton of the substance makes the same or greater contribution to global warming over 100 years as 1 metric ton of carbon dioxide. Within 24 months after the date of enactment of this section, the Administrator shall amend the regulations under this title (including the regulations referred to in sections 603, 608, 609, 610, 611, 612, and 613) to apply to class II, group II substances.

(b) CONSUMPTION AND PRODUCTION OF CLASS II, GROUP II SUBSTANCES.—

(1) IN GENERAL.—

(A) CONSUMPTION PHASE DOWN.—In the case of class II, group II substances, in lieu of applying section 605 and the regulations thereunder, the Administrator shall promulgate regulations phasing down the consumption of class II, group II substances in the United States, and the importation of products containing any class II, group II substance, in accordance with this subsection within 18 months after the date of enactment of this section. Effective January 1, 2012, it shall be unlawful for any person to produce any class II, group II substance, import any class II, group II substance, or import any product containing any class II, group II substance without holding one consumption allowance or one destruction offset credit for each carbon dioxide equivalent ton of the class II, group II substance. Any person who exports a class II, group II substance for which a consumption allowance was retired may receive a refund of that allowance from the Administrator following the export.

(B) PRODUCTION.—If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, that restricts the production

of class II, group II substances, the Administrator shall promulgate regulations establishing a baseline for the production of class II, group II substances in the United States and phasing down the production of class II, group II substances in the United States, in accordance with such multilateral agreement and subject to the same exceptions and other provisions as are applicable to the phase down of consumption of class II, group II substances under this section (except that the Administrator shall not require a person who obtains production allowances from the Administrator to make payment for such allowances if the person is making payment for a corresponding quantity of consumption allowances of the same vintage year). Upon the effective date of such regulations, it shall be unlawful for any person to produce any class II, group II substance without holding one consumption allowance and one production allowance, or one destruction offset credit, for each carbon dioxide equivalent ton of the class II, group II substance.

(C) INTEGRITY OF CAP.—To maintain the integrity of the class II, group II cap, the Administrator may, through rulemaking, limit the percentage of each person's compliance obligation that may be met through the use of destruction offset credits or banked allowances.

(D) COUNTING OF VIOLATIONS.—Each emission allowance or destruction offset credit not held as required by this section shall be a separate violation of this section.

(2) SCHEDULE.—Pursuant to the regulations promulgated pursuant to paragraph (1), the number of class II, group II consumption allowances established by the Administrator for each calendar year beginning in 2012 shall be the following percentage of the baseline, as established by the Administrator pursuant to paragraph (3):

Calendar Year	*Percent of Baseline*
2012	*90*
2013	*87.5*
2014	*85*
2015	*82.5*
2016	*80*
2017	*77.5*
2018	*75*
2019	*71*
2020	*67*
2021	*63*
2022	*59*
2023	*54*
2024	*50*
2025	*46*
2026	*42*
2027	*38*
2028	*34*
2029	*30*
2030	*25*
2031	*21*
2032	*17*
after 2032	*15*

(3) BASELINE.—(A) Within 12 months after the date of enactment of this section, the Administrator shall promulgate regulations to establish the baseline for purposes of paragraph (2). The baseline shall be the sum, expressed in tons of carbon dioxide equivalents, of—

(i) the annual average consumption of all class II substances in calendar years 2004, 2005, and 2006; plus

(ii) the annual average quantity of all class II substances contained in imported products in calendar years 2004, 2005, and 2006.

(B) Notwithstanding subparagraph (A), if the Administrator determines that the baseline is higher than 370 million metric tons of carbon dioxide equivalents, then the Administrator shall establish the baseline at 370 million metric tons of carbon dioxide equivalents.

(C) Notwithstanding subparagraph (A), if the Administrator determines that the baseline is lower than 280 million metric tons of carbon dioxide equivalents, then the Administrator shall establish the baseline at 280 million metric tons of carbon dioxide equivalents.

(4) DISTRIBUTION OF ALLOWANCES.—

(A) IN GENERAL.—Pursuant to the regulations promulgated under paragraph (1), for each calendar year beginning in 2012, the Administrator shall sell consumption allowances in accordance with this paragraph.

(B) ESTABLISHMENT OF POOLS.—The Administrator shall establish two allowance pools. Eighty percent of the consumption allowances available for a calendar year shall be placed in the producer-importer pool, and 20 percent of the consumption allowances available for a calendar year shall be placed in the secondary pool.

(C) PRODUCER-IMPORTER POOL.—

(i) AUCTION.—(I) For each calendar year, the Administrator shall offer for sale at auction the following percentage of the consumption allowances in the producer-importer pool:

Calendar Year	*Percent Available for Auction*
2012	*10*
2013	*20*
2014	*30*
2015	*40*
2016	*50*
2017	*60*
2018	*70*
2019	*80*
2020 and thereafter	*90*

(II) Any person who produced or imported any class II substance during calendar year 2004, 2005, or 2006 may participate in the auction. No other persons may participate in the auction unless permitted to do so pursuant to subclause (III).

(III) Not later than three years after the date of the initial auction and from time to time thereafter, the Administrator shall determine through rulemaking whether any persons who did not produce or import a class II substance during calendar year 2004, 2005, or 2006 will be permitted to participate in future auctions. The Administrator shall base this determination on the duration, consistency, and scale of such person's purchases of consumption allowances in the secondary pool under subparagraph (D), as well as economic or technical hardship and other factors deemed relevant by the Administrator.

(IV) The Administrator shall set a minimum bid per consumption allowance of the following:

(aa) For vintage year 2012, $1.00.

(bb) For vintage year 2013, $1.20.

(cc) For vintage year 2014, $1.40.

(dd) For vintage year 2015, $1.60.

(ee) For vintage year 2016, $1.80.

(ff) For vintage year 2017, $2.00.

(gg) For vintage year 2018 and thereafter, $2.00 adjusted for inflation after vintage year 2017 based upon the producer price index as published by the Department of Commerce.

(ii) NON-AUCTION SALE.—(I) For each calendar year, as soon as practicable after auction, the Administrator shall offer for sale the remaining consumption allowances in the producer-importer pool at the following prices:

(aa) A fee of $1.00 per vintage year 2012 allowance.

(bb) A fee of $1.20 per vintage year 2013 allowance.

(cc) A fee of $1.40 per vintage year 2014 allowance.

(dd) For each vintage year 2015 allowance, a fee equal to the average of $1.10 and the auction clearing price for vintage year 2014 allowances.

(ee) For each vintage year 2016 allowance, a fee equal to the average of $1.30 and the auction clearing price for vintage year 2015 allowances.

(ff) For each vintage year 2017 allowance, a fee equal to the average of $1.40 and the auction clearing price for vintage year 2016 allowances.

(gg) For each allowance of vintage year 2018 and subsequent vintage years, a fee equal to the auction clearing price for that vintage year.

(II) The Administrator shall offer to sell the remaining consumption allowances in the producer-importer pool to producers of class II, group II substances and importers of class II, group II substances in proportion to their relative allocation share.

(III) Such allocation share for such sale shall be determined by the Administrator using such producer's or importer's annual average data on class II substances

from calendar years 2004, 2005, and 2006, on a carbon dioxide equivalent basis, and—

(aa) shall be based on a producer's production, plus importation, plus acquisitions and purchases from persons who produced class II substances in the United States during calendar years 2004, 2005, or 2006, less exportation, less transfers and sales to persons who produced class II substances in the United States during calendar years 2004, 2005, or 2006; and

(bb) for an importer of class II substances that did not produce in the United States any class II substance during calendar years 2004, 2005, and 2006, shall be based on the importer's importation less exportation.

For purposes of item (aa), the Administrator shall account for 100 percent of class II, group II substances and 60 percent of class II, group I substances. For purposes of item (bb), the Administrator shall account for 100 percent of class II, group II substances and 100 percent of class II, group I substances.

(IV) Any consumption allowances made available for nonauction sale to a specific producer or importer of class II, group II substances but not purchased by the specific producer or importer shall be made available for sale to any producer or importer of class II substances during calendar years 2004, 2005, or 2006. If demand for such consumption allowances exceeds supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances that may include pro rata shares, historic production and importation, economic or technical hardship, or other factors deemed relevant by the Administrator. If the supply of such consumption allowances exceeds demand, the Administrator may offer such consumption allowances for sale in the secondary pool as set forth in subparagraph (D).

(D) SECONDARY POOL.—(i) For each calendar year, as soon as practicable after the auction required in subparagraph (C), the Administrator shall offer for sale the consumption allowances in the secondary pool at the prices listed in subparagraph (C)(ii).

(ii) The Administrator shall accept applications for purchase of secondary pool consumption allowances from—

(I) importers of products containing class II, group II substances;

(II) persons who purchased any class II, group II substance directly from a producer or importer of class II, group II substances for use in a product containing a class II, group II substance, a manufacturing process, or a reclamation process;

(III) persons who did not produce or import a class II substance during calendar year 2004, 2005, or 2006, but who the Administrator determines have subsequently taken significant steps to produce or import a

substantial quantity of any class II, group II substance; and

(IV) persons who produced or imported any class II substance during calendar year 2004, 2005, or 2006.

(iii) If the supply of consumption allowances in the secondary pool equals or exceeds the demand for consumption allowances in the secondary pool as presented in the applications for purchase, the Administrator shall sell the consumption allowances in the secondary pool to the applicants in the amounts requested in the applications for purchase. Any consumption allowances in the secondary pool not purchased in a calendar year may be rolled over and added to the quantity available in the secondary pool in the following year.

(iv) If the demand for consumption allowances in the secondary pool as presented in the applications for purchase exceeds the supply of consumption allowances in the secondary pool, the Administrator shall sell the consumption allowances as follows:

(I) The Administrator shall first sell the consumption allowances in the secondary pool to any importers of products containing class II, group II substances in the amounts requested in their applications for purchase. If the demand for such consumption allowances exceeds supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances among importers of products containing class II, group II substances that may include pro rata shares, historic importation, economic or technical hardship, or other factors deemed relevant by the Administrator.

(II) The Administrator shall next sell any remaining consumption allowances to persons identified in subclauses (II) and (III) of clause (ii) in the amounts requested in their applications for purchase. If the demand for such consumption allowances exceeds remaining supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances among subclauses (II) and (III) applicants that may include pro rata shares, historic use, economic or technical hardship, or other factors deemed relevant by the Administrator.

(III) The Administrator shall then sell any remaining consumption allowances to persons who produced or imported any class II substance during calendar year 2004, 2005, or 2006 in the amounts requested in their applications for purchase. If demand for such consumption allowances exceeds remaining supply of such consumption allowances, the Administrator shall develop and utilize criteria for the sale of such consumption allowances that may include pro rata shares, historic production and importation, economic or technical hardship, or other factors deemed relevant by the Administrator.

(IV) Each person who purchases consumption allowances in a non-auction sale under this subparagraph shall be required to disclose the person or entity sponsoring or benefitting from the purchases if such person or entity is, in whole or in part, other than the purchaser or the purchaser's employer.

(E) DISCRETION TO WITHHOLD ALLOWANCES.—Nothing in this paragraph prevents the Administrator from exercising discretion to withhold and retire consumption allowances that would otherwise be available for auction or nonauction sale. Not later than 18 months after the date of enactment of this section, the Administrator shall promulgate regulations establishing criteria for withholding and retiring consumption allowances.

(5) BANKING.—A consumption allowance or destruction offset credit may be used to meet the compliance obligation requirements of paragraph (1) in—

(A) the vintage year for the allowance or destruction offset credit; or

(B) any calendar year subsequent to the vintage year for the allowance or destruction offset credit.

(6) AUCTIONS.—

(A) INITIAL REGULATIONS.—Not later than 18 months after the date of enactment of this section, the Administrator shall promulgate regulations governing the auction of allowances under this section. Such regulations shall include the following requirements:

(i) FREQUENCY; FIRST AUCTION.—Auctions shall be held one time per year at regular intervals, with the first auction to be held no later than October 31, 2011.

(ii) AUCTION FORMAT.—Auctions shall follow a single-round, sealed-bid, uniform price format.

(iii) FINANCIAL ASSURANCE.—The Administrator may establish financial assurance requirements to ensure that auction participants can and will perform on their bids.

(iv) DISCLOSURE OF BENEFICIAL OWNERSHIP.—Each bidder in the auction shall be required to disclose the person or entity sponsoring or benefitting from the bidder's participation in the auction if such person or entity is, in whole or in part, other than the bidder or the bidder's employer.

(v) PUBLICATION OF INFORMATION.—After the auction, the Administrator shall, in a timely fashion, publish the number of bidders, number of winning bidders, the quantity of allowances sold, and the auction clearing price.

(vi) BIDDING LIMITS IN 2012.—In the vintage year 2012 auction, no auction participant may, directly or in concert with another participant, bid for or purchase more allowances offered for sale at the auction than the greater of—

(I) the number of allowances which, when added to the number of allowances available for purchase by the participant in the producer-importer pool

non-auction sale, would equal the participant's annual average consumption of class II, group II substances in calendar years 2004, 2005, and 2006; or

(II) the number of allowances equal to the product of—

(aa) 1.20 multiplied by the participant's allocation share of the producer-importer pool non-auction sale as determined under paragraph (4)(C)(ii); and

(bb) the number of vintage year 2012 allowances offered at auction.

(vii) BIDDING LIMITS IN 2013.—In the vintage year 2013 auction, no auction participant may, directly or in concert with another participant, bid for or purchase more allowances offered for sale at the auction than the product of—

(I) 1.15 multiplied by the ratio of the total number of vintage year 2012 allowances purchased by the participant from the auction and from the producer-importer pool non-auction sale to the total number of vintage year 2012 allowances in the producer-importer pool; and

(II) the number of vintage year 2013 allowances offered at auction.

(viii) BIDDING LIMITS IN SUBSEQUENT YEARS.—In the auctions for vintage year 2014 and subsequent vintage years, no auction participant may, directly or in concert with another participant, bid for or purchase more allowances offered for sale at the auction than the product of—

(I) 1.15 multiplied by the ratio of the highest number of allowances held by the participant in any of the three prior vintage years to meet its compliance obligation under paragraph (1) to the total number of allowances in the producer-importer pool for such vintage year; and

(II) the number of allowances offered at auction for that vintage year.

(ix) OTHER REQUIREMENTS.—The Administrator may include in the regulations such other requirements or provisions as the Administrator considers necessary to promote effective, efficient, transparent, and fair administration of auctions under this section.

(B) REVISION OF REGULATIONS.—The Administrator may, at any time, revise the initial regulations promulgated under subparagraph (A) based on the Administrator's experience in administering allowance auctions. Such revised regulations need not meet the requirements identified in subparagraph (A) if the Administrator determines that an alternative auction design would be more effective, taking into account factors including costs of administration, transparency, fairness, and risks of collusion or manipulation. In determining whether and how to revise the initial regulations under this paragraph, the Administrator shall

not consider maximization of revenues to the Federal Government.

(C) DELEGATION OR CONTRACT.—Pursuant to regulations under this section, the Administrator may, by delegation or contract, provide for the conduct of auctions under the Administrator's supervision by other departments or agencies of the Federal Government or by nongovernmental agencies, groups, or organizations.

(7) PAYMENTS FOR ALLOWANCES.—

(A) INITIAL REGULATIONS.—Not later than 18 months after the date of enactment of this section, the Administrator shall promulgate regulations governing the payment for allowances purchased in auction and non-auction sales under this section. Such regulations shall include the requirement that, in the event that full payment for purchased allowances is not made on the date of purchase, equal payments shall be made one time per calendar quarter with all payments for allowances of a vintage year made by the end of that vintage year.

(B) REVISION OF REGULATIONS.— The Administrator may, at any time, revise the initial regulations promulgated under subparagraph (A) based on the Administrator's experience in administering collection of payments. Such revised regulations need not meet the requirements identified in subparagraph (A) if the Administrator determines that an alternative payment structure or frequency would be more effective, taking into account factors including cost of administration, transparency, and fairness. In determining whether and how to revise the initial regulations under this paragraph, the Administrator shall not consider maximization of revenues to the Federal Government.

(C) PENALTIES FOR NON-PAYMENT.—Failure to pay for purchased allowances in accordance with the regulations promulgated pursuant to this paragraph shall be a violation of the requirements of subsection (b). Section 113(c)(3) shall apply in the case of any person who knowingly fails to pay for purchased allowances in accordance with the regulations promulgated pursuant to this paragraph.

(8) IMPORTED PRODUCTS.—If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, which restricts the production and consumption of class II, group II substances—

(A) as of the date on which such agreement or amendment enters into force, it shall no longer be unlawful for any person to import from a party to such agreement or amendment any product containing any class II, group II substance whose production and consumption are regulated by such agreement or amendment without holding one consumption allowance or one destruction offset credit for each carbon dioxide equivalent ton of the class II, group II substance;

(B) the Administrator shall promulgate regulations within 12 months of the date the United States becomes a party or otherwise adheres to such agreement or amendment, or

the date on which such agreement or amendment enters into force, whichever is later, to establish a new baseline for purposes of paragraph (2), which new baseline shall be the original baseline less the carbon dioxide equivalent of the annual average quantity of any class II substances regulated by such agreement or amendment contained in products imported from parties to such agreement or amendment in calendar years 2004, 2005, and 2006;

(C) as of the date on which such agreement or amendment enters into force, no person importing any product containing any class II, group II substance may, directly or in concert with another person, purchase any consumption allowances for sale by the Administrator for the importation of products from a party to such agreement or amendment that contain any class II, group II substance restricted by such agreement or amendment; and

(D) the Administrator may adjust the two allowance pools established in paragraph (4) such that up to 90 percent of the consumption allowances available for a calendar year are placed in the producer-importer pool with the remaining consumption allowances placed in the secondary pool.

(9) OFFSETS.—

(A) CHLOROFLUOROCARBON DESTRUCTION.—Within 18 months after the date of enactment of this section, the Administrator shall promulgate regulations to provide for the issuance of offset credits for the destruction, in the calendar year 2012 or later, of chlorofluorocarbons in the United States. The Administrator shall establish and distribute to the destroying entity a quantity of destruction offset credits equal to 0.8 times the number of tons of carbon dioxide equivalents of reduction achieved through the destruction. No destruction offset credits shall be established for the destruction of a class II, group II substance.

(B) DEFINITION.—For purposes of this paragraph, the term "destruction" means the conversion of a substance by thermal, chemical, or other means to another substance with little or no carbon dioxide equivalent value and no ozone depletion potential.

(C) REGULATIONS.—The regulations promulgated under this paragraph shall include standards and protocols for project eligibility, certification of destroyers, monitoring, tracking, destruction efficiency, quantification of project and baseline emissions and carbon dioxide equivalent value, and verification. The Administrator shall ensure that destruction offset credits represent real and verifiable destruction of chlorofluorocarbons or other class I or class II, group I, substances authorized under subparagraph (D).

(D) OTHER SUBSTANCES.—The Administrator may promulgate regulations to add to the list of class I and class II, group I, substances that may be destroyed for destruction offset credits, taking into account a candidate substance's carbon dioxide equivalent value, ozone depletion potential, prevalence in banks in the United States, and emission rates, as well as the need for additional cost con-

tainment under the class II, group II cap and the integrity of the class II, group II cap. The Administrator shall not add a class I or class II, group I substance to the list if the consumption of the substance has not been completely phased-out internationally (except for essential use exemptions or other similar exemptions) pursuant to the Montreal Protocol.

(E) EXTENSION OF OFFSETS.—(i) At any time after the Administrator promulgates regulations pursuant to subparagraph (A), the Administrator may add the types of destruction projects authorized to receive destruction offset credits under this paragraph to the list of types of projects eligible for offset credits under section 733. Nothing in this paragraph shall affect the issuance of offset credits under section 740.

(ii) The Administrator shall not make the addition under clause (i) unless the Administrator finds that insufficient destruction is occurring or is projected to occur under this paragraph and that the addition would increase destruction.

(iii) In no event shall more than one destruction offset credit be issued under title VII and this section for the destruction of the same quantity of a substance.

(10) LEGAL STATUS OF ALLOWANCES AND CREDITS.—None of the following constitutes a property right:

(A) A production or consumption allowance.

(B) A destruction offset credit.

(c) DEADLINES FOR COMPLIANCE.—Notwithstanding the deadlines specified for class II substances in sections 608, 609, 610, 612, and 613 that occur prior to January 1, 2009, the deadline for promulgating regulations under those sections for class II, group II substances shall be January 1, 2012.

(d) EXCEPTIONS FOR ESSENTIAL USES.—Notwithstanding any phase down of production and consumption required by this section, to the extent consistent with any applicable multilateral agreement to which the United States is a party or otherwise adheres, the Administrator may provide the following exceptions for essential uses:

(1) MEDICAL DEVICES.—The Administrator, after notice and opportunity for public comment, and in consultation with the Commissioner of the Food and Drug Administration, may provide an exception for the production and consumption of class II, group II substances solely for use in medical devices.

(2) AVIATION SAFETY.—The Administrator, after notice and opportunity for public comment, may authorize the production and consumption of limited quantities of class II, group II substances solely for the purposes of aviation safety if the Administrator of the Federal Aviation Administration, in consultation with the Administrator, determines that no safe and effective substitute has been developed and that such authorization is necessary for aviation safety purposes.

(e) DEVELOPING COUNTRIES.—Notwithstanding any phase down of production required by this section, the Administrator, after notice and opportunity for public comment, may authorize the production of limited quantities of class II, group II substances in excess of the amounts otherwise allowable under this section solely for ex-

port to, and use in, developing countries. Any production authorized under this subsection shall be solely for purposes of satisfying the basic domestic needs of such countries as provided in applicable international agreements, if any, to which the United States is a party or otherwise adheres.

(f) NATIONAL SECURITY; FIRE SUPPRESSION, ETC.—The provisions of subsection (f) and paragraphs (1) and (2) of subsection (g) of section 604 shall apply to any consumption and production phase down of class II, group II substances in the same manner and to the same extent, consistent with any applicable international agreement to which the United States is a party or otherwise adheres, as such provisions apply to the substances specified in such subsection.

(g) ACCELERATED SCHEDULE.—In lieu of section 606, the provisions of paragraphs (1), (2), and (3) of this subsection shall apply in the case of class II, group II substances.

(1) IN GENERAL.—The Administrator shall promulgate initial regulations not later than 18 months after the date of enactment of this section, and revised regulations any time thereafter, which establish a schedule for phasing down the consumption (and, if the condition in subsection (b)(1)(B) is met, the production) of class II, group II substances that is more stringent than the schedule set forth in this section if, based on the availability of substitutes, the Administrator determines that such more stringent schedule is practicable, taking into account technological achievability, safety, and other factors the Administrator deems relevant, or if the Montreal Protocol, or any applicable international agreement to which the United States is a party or otherwise adheres, is modified or established to include a schedule or other requirements to control or reduce production, consumption, or use of any class II, group II substance more rapidly than the applicable schedule under this section.

(2) PETITION.—Any person may submit a petition to promulgate regulations under this subsection in the same manner and subject to the same procedures as are provided in section 606(b).

(3) INCONSISTENCY.—If the Administrator determines that the provisions of this section regarding banking, allowance rollover, or destruction offset credits create a significant potential for inconsistency with the requirements of any applicable international agreement to which the United States is a party or otherwise adheres, the Administrator may promulgate regulations restricting the availability of banking, allowance rollover, or destruction offset credits to the extent necessary to avoid such inconsistency.

(h) EXCHANGE.—Section 607 shall not apply in the case of class II, group II substances. Production and consumption allowances for class II, group II substances may be freely exchanged or sold but may not be converted into allowances for class II, group I substances.

(i) LABELING.—(1) In applying section 611 to products containing or manufactured with class II, group II substances, in lieu of the words "destroying ozone in the upper atmosphere" on labels required under section 611 there shall be substituted the words "contributing to global warming".

(2) The Administrator may, through rulemaking, exempt from the requirements of section 611 products containing or manufactured with class II, group II substances determined to have little or no carbon dioxide equivalent value compared to other substances used in similar products.

(j) NONESSENTIAL PRODUCTS.—For the purposes of section 610, class II, group II substances shall be regulated under section 610(b), except that in applying section 610(b) the word "hydrofluorocarbon" shall be substituted for the word "chlorofluorocarbon" and the term "class II, group II" shall be substituted for the term "class I". Class II, group II substances shall not be subject to the provisions of section 610(d).

(k) INTERNATIONAL TRANSFERS.—In the case of class II, group II substances, in lieu of sections 616(a) and 616(b), this subsection shall apply. To the extent consistent with any applicable international agreement to which the United States is a party or otherwise adheres, including any amendment to the Montreal Protocol, the United States may engage in transfers with other parties to such agreement or amendment under the following conditions:

(1) The United States may transfer production allowances to another party to such agreement or amendment if, at the time of the transfer, the Administrator establishes revised production limits for the United States accounting for the transfer in accordance with regulations promulgated pursuant to this subsection.

(2) The United States may acquire production allowances from another party to such agreement or amendment if, at the time of the transfer, the Administrator finds that the other party has revised its domestic production limits in the same manner as provided with respect to transfers by the United States in the regulations promulgated pursuant to this subsection.

(l) RELATIONSHIP TO OTHER LAWS.—

(1) STATE LAWS.—For purposes of section 116, the requirements of this section for class II, group II substances shall be treated as requirements for the control and abatement of air pollution.

(2) MULTILATERAL AGREEMENTS.—Section 614 shall apply to the provisions of this section concerning class II, group II substances, except that for the words "Montreal Protocol" there shall be substituted the words "Montreal Protocol, or any applicable multilateral agreement to which the United States is a party or otherwise adheres that restricts the production or consumption of class II, group II substances," and for the words "Article 4 of the Montreal Protocol" there shall be substituted "any provision of such multilateral agreement regarding trade with non-parties".

(3) FEDERAL FACILITIES.—For purposes of section 118, the requirements of this section for class II, group II substances and corresponding State, interstate, and local requirements, administrative authority, and process and sanctions shall be treated as requirements for the control and abatement of air pollution within the meaning of section 118.

(m) CARBON DIOXIDE EQUIVALENT VALUE.—(1) In lieu of section 602(e), the provisions of this subsection shall apply in the case of

class II, group II substances. Simultaneously with establishing the list of class II, group II substances, and simultaneously with any addition to that list, the Administrator shall publish the carbon dioxide equivalent value of each listed class II, group II substance, based on a determination of the number of metric tons of carbon dioxide that makes the same contribution to global warming over 100 years as 1 metric ton of each class II, group II substance.

(2) Not later than February 1, 2017, and not less than every 5 years thereafter, the Administrator shall—

(A) review, and if appropriate, revise the carbon dioxide equivalent values established for class II, group II substances based on a determination of the number of metric tons of carbon dioxide that makes the same contributions to global warming over 100 years as 1 metric ton of each class II, group II substance; and

(B) publish in the Federal Register the results of that review and any revisions.

(3) A revised determination published in the Federal Register under paragraph (2)(B) shall take effect for production of class II, group II substances, consumption of class II, group II substances, and importation of products containing class II, group II substances starting on January 1 of the first calendar year starting at least 9 months after the date on which the revised determination was published.

(4) The Administrator may decrease the frequency of review and revision under paragraph (2) if the Administrator determines that such decrease is appropriate in order to synchronize such review and revisions with any similar review process carried out pursuant to the United Nations Framework Convention on Climate Change, an agreement negotiated under that convention, The Vienna Convention for the Protection of the Ozone Layer, or an agreement negotiated under that convention, except that in no event shall the Administrator carry out such review and revision any less frequently than every 10 years.

(n) REPORTING REQUIREMENTS.—In lieu of subsections (b) and (c) of section 603, paragraphs (1) and (2) of this subsection shall apply in the case of class II, group II substances:

(1) IN GENERAL.—On a quarterly basis, or such other basis (not less than annually) as determined by the Administrator, each person who produced, imported, or exported a class II, group II substance, or who imported a product containing a class II, group II substance, shall file a report with the Administrator setting forth the carbon dioxide equivalent amount of the substance that such person produced, imported, or exported, as well as the amount that was contained in products imported by that person, during the preceding reporting period. Each such report shall be signed and attested by a responsible officer. If all other reporting is complete, no such report shall be required from a person after April 1 of the calendar year after such person permanently ceases production, importation, and exportation of the substance, as well as importation of products containing the substance, and so notifies the Administrator in writing. If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone

Layer, that restricts the production and consumption of class II, group II substances, then, if all other reporting is complete, no such report shall be required from a person with respect to importation from parties to such agreement or amendment of products containing any class II, group II substance restricted by such agreement or amendment, after April 1 of the calendar year following the year during which such agreement or amendment enters into force.

(2) BASELINE REPORTS FOR CLASS II, GROUP II SUBSTANCES.—

(A) IN GENERAL.—Unless such information has been previously reported to the Administrator, on the date on which the first report under paragraph (1) of this subsection is required to be filed, each person who produced, imported, or exported a class II, group II substance, or who imported a product containing a class II substance, (other than a substance added to the list of class II, group II substances after the publication of the initial list of such substances under this section), shall file a report with the Administrator setting forth the amount of such substance that such person produced, imported, exported, or that was contained in products imported by that person, during each of calendar years 2004, 2005, and 2006.

(B) PRODUCERS.—In reporting under subparagraph (A), each person who produced in the United States a class II substance during calendar years 2004, 2005, or 2006 shall—

(i) report all acquisitions or purchases of class II substances during each of calendar years 2004, 2005, and 2006 from all other persons who produced in the United States a class II substance during calendar years 2004, 2005, or 2006, and supply evidence of such acquisitions and purchases as deemed necessary by the Administrator; and

(ii) report all transfers or sales of class II substances during each of calendar years 2004, 2005, and 2006 to all other persons who produced in the United States a class II substance during calendar years 2004, 2005, or 2006, and supply evidence of such transfers and sales as deemed necessary by the Administrator.

(C) ADDED SUBSTANCES.—In the case of a substance added to the list of class II, group II substances after publication of the initial list of such substances under this section, each person who produced, imported, exported, or imported products containing such substance in calendar year 2004, 2005, or 2006 shall file a report with the Administrator within 180 days after the date on which such substance is added to the list, setting forth the amount of the substance that such person produced, imported, and exported, as well as the amount that was contained in products imported by that person, in calendar years 2004, 2005, and 2006.

(o) STRATOSPHERIC OZONE AND CLIMATE PROTECTION FUND.—

(1) IN GENERAL.—There is established in the Treasury of the United States a Stratospheric Ozone and Climate Protection Fund.

(2) DEPOSITS.—The Administrator shall deposit all proceeds from the auction and non-auction sale of allowances under this section into the Stratospheric Ozone and Climate Protection Fund.

(3) USE.—Amounts deposited into the Stratospheric Ozone and Climate Protection Fund shall be available, subject to appropriations, exclusively for the following purposes:

(A) RECOVERY, RECYCLING, AND RECLAMATION.—The Administrator may utilize funds to establish a program to incentivize the recovery, recycling, and reclamation of any Class II substances in order to reduce emissions of such substances.

(B) MULTILATERAL FUND.—If the United States becomes a party or otherwise adheres to a multilateral agreement, including any amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, which restricts the production and consumption of class II, group II substances, the Administrator may utilize funds to meet any related contribution obligation of the United States to the Multilateral Fund for the Implementation of the Montreal Protocol or similar multilateral fund established under such multilateral agreement.

(C) BEST-IN-CLASS APPLIANCES DEPLOYMENT PROGRAM.—The Secretary of Energy is authorized to utilize funds to carry out the purposes of section 214 of the American Clean Energy and Security Act of 2009.

(D) LOW GLOBAL WARMING PRODUCT TRANSITION ASSISTANCE PROGRAM.—

(i) IN GENERAL.—The Administrator, in consultation with the Secretary of Energy, may utilize funds in fiscal years 2012 through 2022 to establish a program to provide financial assistance to manufacturers of products containing class II, group II substances to facilitate the transition to products that contain or utilize alternative substances with no or low carbon dioxide equivalent value and no ozone depletion potential.

(ii) DEFINITION.—In this subparagraph, the term "products" means refrigerators, freezers, dehumidifiers, air conditioners, foam insulation, technical aerosols, fire protection systems, and semiconductors.

(iii) FINANCIAL ASSISTANCE.—The Administrator may provide financial assistance to manufacturers pursuant to clause (i) for—

(I) the design and configuration of new products that use alternative substances with no or low carbon dioxide equivalent value and no ozone depletion potential; and

(II) the redesign and retooling of facilities for the manufacture of products in the United States that use alternative substances with no or low carbon dioxide equivalent value and no ozone depletion potential.

(iv) REPORTS.—For any fiscal year during which the Administrator provides financial assistance pursuant to this subparagraph, the Administrator shall submit

a report to the Congress within 3 months of the end of such fiscal year detailing the amounts, recipients, specific purposes, and results of the financial assistance provided.

TITLE VII—GLOBAL WARMING POLLUTION REDUCTION PROGRAM

SEC. 700. DEFINITIONS.

In this title:

(1) ADDITIONAL.—The term "additional", when used with respect to reductions or avoidance of greenhouse gas emissions, or to sequestration of greenhouse gases, means reductions, avoidance, or sequestration that result in a lower level of net greenhouse gas emissions or atmospheric concentrations than would occur in the absence of an offset project.

(2) ADDITIONALITY.—The term "additionality" means the extent to which reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases, are additional.

(3) ADVISORY BOARD.—The term "Advisory Board" means the Offsets Integrity Advisory Board established under section 731.

(4) AFFILIATED.—The term "affiliated"—

(A) when used in relation to an entity means owned or controlled by, or under common ownership or control with, another entity, as determined by the Administrator; and

(B) when used in relation to a natural gas local distribution company, means owned or controlled by, or under common ownership or control with, another natural gas local distribution company, as determined by the Administrator.

(5) ALLOWANCE.—The term "allowance" means a limited authorization to emit, or have attributable greenhouse gas emissions in an amount of, 1 ton of carbon dioxide equivalent of a greenhouse gas in accordance with this title; it includes an emission allowance, a compensatory allowance, or an international emission allowance.

(6) ATTRIBUTABLE GREENHOUSE GAS EMISSIONS.—The term "attributable greenhouse gas emissions" means—

(A) for a covered entity that is a fuel producer or importer described in paragraph (13)(B), greenhouse gases that would be emitted from the combustion of any petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, produced or imported by that covered entity for sale or distribution in interstate commerce, assuming no capture and sequestration of any greenhouse gas emissions;

(B) for a covered entity that is an industrial gas producer or importer described in paragraph (13)(C), the tons of carbon dioxide equivalent of fossil fuel-based carbon dioxide, nitrous oxide, any fluorinated gas, other than nitrogen trifluoride, that is a greenhouse gas, or any combination thereof—

(i) produced or imported by such covered entity during the previous calendar year for sale or distribution in interstate commerce; or

(ii) released as fugitive emissions in the production of fluorinated gas; and

(C) for a natural gas local distribution company described in paragraph (13)(J), greenhouse gases that would be emitted from the combustion of the natural gas, and any other gas meeting the specifications for commingling with natural gas for purposes of delivery, that such entity delivered during the previous calendar year to customers that are not covered entities, assuming no capture and sequestration of that greenhouse gas.

(7) BIOLOGICAL SEQUESTRATION; BIOLOGICALLY SEQUESTERED.—The terms "biological sequestration" and "biologically sequestered" mean the removal of greenhouse gases from the atmosphere by terrestrial biological means, such as by growing plants, and the storage of those greenhouse gases in plants or soils.

(8) CAPPED EMISSIONS.—The term "capped emissions" means greenhouse gas emissions to which section 722 applies, including emissions from the combustion of natural gas, petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid to which section 722(b)(2) or (8) applies.

(9) CAPPED SOURCE.—The term "capped source" means a source that directly emits capped emissions.

(10) CARBON DIOXIDE EQUIVALENT.—The term "carbon dioxide equivalent" means the unit of measure, expressed in metric tons, of greenhouse gases as provided under section 711 or 712.

(11) CARBON STOCK.—The term "carbon stock" means the quantity of carbon contained in a biological reservoir or system which has the capacity to accumulate or release carbon.

(12) COMPENSATORY ALLOWANCE.—The term "compensatory allowance" means an allowance issued under section 721(f).

(13) COVERED ENTITY.—The term "covered entity" means each of the following:

(A) Any electricity source.

(B) Any stationary source that produces, and any entity that (or any group of two or more affiliated entities that, in the aggregate) imports, for sale or distribution in interstate commerce in 2008 or any subsequent year, petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, the combustion of which would emit more than 25,000 tons of carbon dioxide equivalent, as determined by the Administrator.

(C) Any stationary source that produces, and any entity that (or any group of two or more affiliated entities that, in the aggregate) imports, for sale or distribution in interstate commerce, in bulk, or in products designated by the Administrator, in 2008 or any subsequent year more than 25,000 tons of carbon dioxide equivalent of—

(i) fossil fuel-based carbon dioxide;

(ii) nitrous oxide;

(iii) perfluorocarbons;

(iv) sulfur hexafluoride;

(v) any other fluorinated gas, except for nitrogen trifluoride, that is a greenhouse gas, as designated by the Administrator under section 711(b) or (c); or

(vi) any combination of greenhouse gases described in clauses (i) through (vi).

(D) Any stationary source that has emitted 25,000 or more tons of carbon dioxide equivalent of nitrogen trifluoride in 2008 or any subsequent year.

(E) Any geologic sequestration site.

(F) Any stationary source in the following industrial sectors:

(i) Adipic acid production.

(ii) Primary aluminum production.

(iii) Ammonia manufacturing.

(iv) Cement production, excluding grinding-only operations.

(v) Hydrochlorofluorocarbon production.

(vi) Lime manufacturing.

(vii) Nitric acid production.

(viii) Petroleum refining.

(ix) Phosphoric acid production.

(x) Silicon carbide production.

(xi) Soda ash production.

(xii) Titanium dioxide production.

(xiii) Coal-based liquid or gaseous fuel production.

(G) Any stationary source in the chemical or petrochemical sector that, in 2008 or any subsequent year—

(i) produces acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or methanol; or

(ii) produces a chemical or petrochemical product if producing that product results in annual combustion plus process emissions of 25,000 or more tons of carbon dioxide equivalent.

(H) Any stationary source that—

(i) is in one of the following industrial sectors: ethanol production; ferroalloy production; fluorinated gas production; food processing; glass production; hydrogen production; iron and steel production; lead production; pulp and paper manufacturing; and zinc production; and

(ii) has emitted 25,000 or more tons of carbon dioxide equivalent in 2008 or any subsequent year.

(I) Any fossil fuel-fired combustion device (such as a boiler) or grouping of such devices that—

(i) is all or part of an industrial source not specified in subparagraph (D), (F), (G), or (H); and

(ii) has emitted 25,000 or more tons of carbon dioxide equivalent in 2008 or any subsequent year.

(J) Any natural gas local distribution company that (or any group of 2 or more affiliated natural gas local distribution companies that, in the aggregate) in 2008 or any subsequent year, delivers 460,000,000 cubic feet or more of natural gas to customers that are not covered entities.

(14) CREDITING PERIOD.—The term "crediting period" means the period with respect to which an offset project is eligible to earn offset credits under part D, as determined under section 734(c).

(15) DESIGNATED REPRESENTATIVE.—The term "designated representative" means, with respect to a covered entity, a reporting entity, an offset project developer, or any other entity receiving or holding allowances or offset credits under this title, an individual authorized, through a certificate of representation submitted to the Administrator by the owners and operators or similar entity official, to represent the owners and operators or similar entity official in all matters pertaining to this title (including the holding, transfer, or disposition of allowances or offset credits), and to make all submissions to the Administrator under this title.

(16) DEVELOPING COUNTRY.—The term "developing country" means a country eligible to receive official development assistance according to the income guidelines of the Development Assistance Committee of the Organization for Economic Cooperation and Development.

(17) DOMESTIC OFFSET CREDIT.—The term "domestic offset credit" means an offset credit issued under part D, other than an international offset credit.

(18) ELECTRICITY SOURCE.—The term "electricity source" means a stationary source that includes one or more utility units.

(19) EMISSION.—The term "emission" means the release of a greenhouse gas into the ambient air. Such term does not include gases that are captured and sequestered, except to the extent that they are later released into the atmosphere, in which case compliance must be demonstrated pursuant to section 722(b)(5).

(20) EMISSION ALLOWANCE.—The term "emission allowance" means an allowance established under section 721(a) or section 726(g)(2) or (h)(1)(C).

(21) FAIR MARKET VALUE.—The term "fair market value" means the average daily closing price on registered exchanges or, if such a price is unavailable, the average price as determined by the Administrator, during a specified time period, of an emission allowance.

(22) FEDERAL LAND.—The term "Federal land" means land that is owned by the United States, other than land held in trust for an Indian or Indian tribe.

(23) FOSSIL FUEL.—The term "fossil fuel" means natural gas, petroleum, or coal, or any form of solid, liquid, or gaseous fuel derived from such material, including consumer products that are derived from such materials and are combusted.

(24) FOSSIL FUEL-FIRED.—The term "fossil fuel-fired" means powered by combustion of fossil fuel, alone or in combination with any other fuel, regardless of the percentage of fossil fuel consumed.

(25) FUGITIVE EMISSIONS.—The term "fugitive emissions" means emissions from leaks, valves, joints, or other small openings in pipes, ducts, or other equipment, or from vents.

(26) GEOLOGIC SEQUESTRATION; GEOLOGICALLY SEQUESTERED.—The terms "geologic sequestration" and "geologically sequestered" mean the sequestration of greenhouse gases in subsurface geologic formations for purposes of permanent storage.

(27) GEOLOGIC SEQUESTRATION SITE.—The term "geologic sequestration site" means a site where carbon dioxide is geologically sequestered.

(28) GREENHOUSE GAS.—The term "greenhouse gas" means any gas described in section 711(a) or designated under section 711(b), (c), or (e), except to the extent that it is regulated under title VI.

(29) HIGH CONSERVATION PRIORITY LAND.—The term "high conservation priority land" means land that is not Federal land and is—

(A) globally or State ranked as critically imperiled or imperiled under a State Natural Heritage Program; or

(B) old-growth or late-successional forest, as identified by the office of the State Forester or relevant State agency with regulatory jurisdiction over forestry activities.

(30) HOLD.—The term "hold" means, with respect to an allowance or offset credit, to have in the appropriate account in the allowance tracking system, or submit to the Administrator for recording in such account.

(31) INDUSTRIAL SOURCE.—The term "industrial source" means any stationary source that—

(A) is not an electricity source; and

(B) is in—

(i) the manufacturing sector (as defined in North American Industrial Classification System codes 31, 32, and 33); or

(ii) the natural gas processing or natural gas pipeline transportation sector (as defined in North American Industrial Classification System codes 211112 or 486210).

(32) INTERNATIONAL EMISSION ALLOWANCE.—The term "international emission allowance" means a tradable authorization to emit 1 ton of carbon dioxide equivalent of greenhouse gas that is issued by a national or supranational foreign government pursuant to a qualifying international program designated by the Administrator pursuant to section 728(a).

(33) INTERNATIONAL OFFSET CREDIT.—The term "international offset credit" means an offset credit issued by the Administrator under section 743.

(34) LEAKAGE.—The term "leakage" means a significant increase in greenhouse gas emissions, or significant decrease in sequestration, which is caused by an offset project and occurs outside the boundaries of the offset project.

(35) MINERAL SEQUESTRATION.—The term "mineral sequestration" means sequestration of carbon dioxide from the atmosphere by capturing carbon dioxide into a permanent mineral, such as the aqueous precipitation of carbonate minerals that results in the storage of carbon dioxide in a mineral form.

(36) NATURAL GAS LIQUID.—The term "natural gas liquid" means ethane, butane, isobutane, natural gasoline, and propane which is ready for commercial sale or use.

(37) NATURAL GAS LOCAL DISTRIBUTION COMPANY.—The term "natural gas local distribution company" has the meaning given the term "local distribution company" in section 2(17) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3301(17)).

(38) OFFSET CREDIT.—The term "offset credit" means a credit issued under part D.

(39) OFFSET PROJECT.—The term "offset project" means a project or activity that reduces or avoids greenhouse gas emissions, or sequesters greenhouse gases, and for which offset credits are issued under part D.

(40) OFFSET PROJECT DEVELOPER.—The term "offset project developer" means the individual or entity designated as the offset project developer in an offset project approval petition under section 735(c)(1).

(41) PETROLEUM.—The term "petroleum" includes crude oil, tar sands, oil shale, and heavy oils.

(42) RENEWABLE BIOMASS.—The term "renewable biomass" means any of the following:

(A) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 1, 2009.

(B) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.

(C) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not municipal solid waste, recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).

(D) Animal waste or animal byproducts, including products of animal waste digesters.

(E) Algae.

(F) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road, electric transmission line, utility tower, or water supply line.

(G) Residues from or byproducts of milled logs.

(H) Any of the following removed from forested land that is not Federal and is not high conservation priority land:

(i) Trees, brush, slash, residues, interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established—

(I) prior to January 1, 2009; or

(II) on land that, as of January 1, 2009, was cultivated or fallow and non-forested.

(ii) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation.

(iii) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types.

(iv) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees.

(I) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are—

(i) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or mature forest stands, components of the National Landscape Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas; or Wild and Scenic Rivers corridors;

(ii) harvested in environmentally sustainable quantities, as determined by the appropriate Federal land manager; and

(iii) are harvested in accordance with Federal and State law, and applicable land management plans.

(43) RETIRE.—The term "retire", with respect to an allowance or offset credit established or issued under this title, means to disqualify such allowance or offset credit for any subsequent use under this title, regardless of whether the use is a sale, exchange, or submission of the allowance or offset credit to satisfy a compliance obligation.

(44) REVERSAL.—The term "reversal" means an intentional or unintentional loss of sequestered greenhouse gases to the atmosphere.

(45) SEQUESTERED AND SEQUESTRATION.—The terms "sequestered" and "sequestration" mean the separation, isolation, or removal of greenhouse gases from the atmosphere, as determined by the Administrator. The terms include biological, geologic, and mineral sequestration, but do not include ocean fertilization techniques.

(46) STATIONARY SOURCE.—The term "stationary source" means any integrated operation comprising any plant, building, structure, or stationary equipment, including support buildings and equipment, that is located within one or more contiguous or adjacent properties, is under common control of the same person or persons, and emits or may emit a greenhouse gas.

(47) STRATEGIC RESERVE ALLOWANCE.—The term "strategic reserve allowance" means an emission allowance reserved for, transferred to, or deposited in the strategic reserve, or established, under section 726.

(48) UNCAPPED EMISSIONS.—The term "uncapped emissions" means emissions of greenhouse gases emitted after December 31, 2011, that are not capped emissions.

(49) UNITED STATES GREENHOUSE GAS EMISSIONS.—The term "United States greenhouse gas emissions" means the total quan-

tity of annual greenhouse gas emissions from the United States, as calculated by the Administrator and reported to the United Nations Framework Convention on Climate Change Secretariat.

(50) UTILITY UNIT.—The term "utility unit" means a combustion device that, on January 1, 2009, or any date thereafter, is fossil fuel-fired and serves a generator that produces electricity for sale, unless such combustion device, during the 12-month period starting the later of January 1, 2009, or the commencement of commercial operation and each calendar year starting after such later date—

(A) is part of an integrated cycle system that cogenerates steam and electricity during normal operation and that supplies one-third or less of its potential electric output capacity and 25 MW or less of electrical output for sale; or

(B) combusts materials of which more than 95 percent is municipal solid waste on a heat input basis.

(51) VINTAGE YEAR.—The term "vintage year" means the calendar year for which an emission allowance is established under section 721(a) or which is assigned to an emission allowance under section 726(g)(3)(A), except that the vintage year for a strategic reserve allowance shall be the year in which such allowance is purchased at auction.

PART A—GLOBAL WARMING POLLUTION REDUCTION GOALS AND TARGETS

SEC. 701. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress finds as follows:

(1) Global warming poses a significant threat to the national security, economy, public health and welfare, and environment of the United States, as well as of other nations.

(2) Reviews of scientific studies, including by the Intergovernmental Panel on Climate Change and the National Academy of Sciences, demonstrate that global warming is the result of the combined anthropogenic greenhouse gas emissions from numerous sources of all types and sizes. Each increment of emission, when combined with other emissions, causes or contributes materially to the acceleration and extent of global warming and its adverse effects for the lifetime of such gas in the atmosphere. Accordingly, controlling emissions in small as well as large amounts is essential to prevent, slow the pace of, reduce the threats from, and mitigate global warming and its adverse effects.

(3) Because they induce global warming, greenhouse gas emissions cause or contribute to injuries to persons in the United States, including—

(A) adverse health effects such as disease and loss of life;

(B) displacement of human populations;

(C) damage to property and other interests related to ocean levels, acidification, and ice changes;

(D) severe weather and seasonal changes;

(E) disruption, costs, and losses to business, trade, employment, farms, subsistence, aesthetic enjoyment of the environment, recreation, culture, and tourism;

(F) damage to plants, forests, lands, and waters;

(G) harm to wildlife and habitat;

(H) scarcity of water and the decreased abundance of other natural resources;

(I) worsening of tropospheric air pollution;

(J) substantial threats of similar damage; and

(K) other harm.

(4) That many of these effects and risks of future effects of global warming are widely shared does not minimize the adverse effects individual persons have suffered, will suffer, and are at risk of suffering because of global warming.

(5) That some of the adverse and potentially catastrophic effects of global warming are at risk of occurring and not a certainty does not negate the harm persons suffer from actions that increase the likelihood, extent, and severity of such future impacts.

(6) Nations of the world look to the United States for leadership in addressing the threat of and harm from global warming. Full implementation of the Safe Climate Act is critical to engage other nations in an international effort to mitigate the threat of and harm from global warming.

(7) Global warming and its adverse effects are occurring and are likely to continue and increase in magnitude, and to do so at a greater and more harmful rate, unless the Safe Climate Act is fully implemented and enforced in an expeditious manner.

(b) PURPOSE.—It is the general purpose of the Safe Climate Act to help prevent, reduce the pace of, mitigate, and remedy global warming and its adverse effects. To fulfill such purpose, it is necessary to—

(1) require the timely fulfillment of all governmental acts and duties, both substantive and procedural, and the prompt compliance of covered entities with the requirements of the Safe Climate Act;

(2) establish and maintain an effective, transparent, and fair market for emission allowances and preserve the integrity of the cap on emissions and of offset credits;

(3) advance the production and deployment of clean energy and energy efficiency technologies; and

(4) ensure effective enforcement of the Safe Climate Act by citizens, States, Indian tribes, and all levels of government because each violation of the Safe Climate Act is likely to result in an additional increment of greenhouse gas emission and will slow the pace of implementation of the Safe Climate Act and delay the achievement of the goals set forth in section 702, and cause or contribute to global warming and its adverse effects.

SEC. 702. ECONOMY-WIDE REDUCTION GOALS.

The goals of the Safe Climate Act are to reduce steadily the quantity of United States greenhouse gas emissions such that—

(1) in 2012, the quantity of United States greenhouse gas emissions does not exceed 97 percent of the quantity of United States greenhouse gas emissions in 2005;

(2) in 2020, the quantity of United States greenhouse gas emissions does not exceed 80 percent of the quantity of United States greenhouse gas emissions in 2005;

(3) in 2030, the quantity of United States greenhouse gas emissions does not exceed 58 percent of the quantity of United States greenhouse gas emissions in 2005; and

(4) in 2050, the quantity of United States greenhouse gas emissions does not exceed 17 percent of the quantity of United States greenhouse gas emissions in 2005.

SEC. 703. REDUCTION TARGETS FOR SPECIFIED SOURCES.

(a) IN GENERAL.—The regulations issued under section 721 shall cap and reduce annually the greenhouse gas emissions of capped sources each calendar year beginning in 2012 such that—

(1) in 2012, the quantity of greenhouse gas emissions from capped sources does not exceed 97 percent of the quantity of greenhouse gas emissions from such sources in 2005;

(2) in 2020, the quantity of greenhouse gas emissions from capped sources does not exceed 83 percent of the quantity of greenhouse gas emissions from such sources in 2005;

(3) in 2030, the quantity of greenhouse gas emissions from capped sources does not exceed 58 percent of the quantity of greenhouse gas emissions from such sources in 2005; and

(4) in 2050, the quantity of greenhouse gas emissions from capped sources does not exceed 17 percent of the quantity of greenhouse gas emissions from such sources in 2005.

(b) DEFINITION.—For purposes of this section, the term "greenhouse gas emissions from such sources in 2005" means emissions to which section 722 would have applied if the requirements of this title for the specified year had been in effect for 2005.

SEC. 704. SUPPLEMENTAL POLLUTION REDUCTIONS.

For the purposes of decreasing the likelihood of catastrophic climate change, preserving tropical forests, building capacity to generate offset credits, and facilitating international action on global warming, the Administrator shall set aside the percentage specified in section 781 of the quantity of emission allowances established under section 721(a) for each year, to be used to achieve a reduction of greenhouse gas emissions from deforestation in developing countries in accordance with part E. In 2020, activities supported under part E shall provide greenhouse gas reductions in an amount equal to an additional 10 percentage points of reductions from United States greenhouse gas emissions in 2005. The Administrator shall distribute these allowances with respect to activities in countries that enter into and implement agreements or arrangements relating to reduced deforestation as described in section 754(a)(2).

SEC. 705. REVIEW AND PROGRAM RECOMMENDATIONS.

(a) IN GENERAL.—The Administrator shall, in consultation with appropriate Federal agencies, submit to Congress a report not later than July 1, 2013, and every 4 years thereafter, that includes—

(1) an analysis of key findings based on the latest scientific information and data relevant to global climate change;

(2) an analysis of capabilities to monitor and verify greenhouse gas reductions on a worldwide basis, including for the United States, as required under the Safe Climate Act; and

(3) an analysis of the status of worldwide greenhouse gas reduction efforts, including implementation of the Safe Climate Act and other policies, both domestic and international, for reducing greenhouse gas emissions, preventing dangerous atmos-

pheric concentrations of greenhouse gases, preventing significant irreversible consequences of climate change, and reducing vulnerability to the impacts of climate change.

(b) EXCEPTION.—Paragraph (3) of subsection (a) shall not apply to the first report submitted under such subsection.

(c) LATEST SCIENTIFIC INFORMATION.—The analysis required under subsection (a)(1) shall—

(1) address existing scientific information and reports, considering, to the greatest extent possible, the most recent assessment report of the Intergovernmental Panel on Climate Change, reports by the United States Global Change Research Program, the Natural Resources Climate Change Adaptation Panel established under section 475 of the American Clean Energy and Security Act of 2009, and Federal agencies, and the European Union's global temperature data assessment; and

(2) review trends and projections for—

(A) global and country-specific annual emissions of greenhouse gases, and cumulative greenhouse gas emissions produced between 1850 and the present, including—

(i) global cumulative emissions of anthropogenic greenhouse gases;

(ii) global annual emissions of anthropogenic greenhouse gases; and

(iii) by country, annual total, annual per capita, and cumulative anthropogenic emissions of greenhouse gases for the top 50 emitting nations;

(B) significant changes, both globally and by region, in annual net non-anthropogenic greenhouse gas emissions from natural sources, including permafrost, forests, or oceans;

(C) global atmospheric concentrations of greenhouse gases, expressed in annual concentration units as well as carbon dioxide equivalents based on 100-year global warming potentials;

(D) major climate forcing factors, such as aerosols;

(E) global average temperature, expressed as seasonal and annual averages in land, ocean, and land-plus-ocean averages; and

(F) sea level rise;

(3) assess the current and potential impacts of global climate change on—

(A) human populations, including impacts on public health, economic livelihoods, subsistence, human infrastructure, and displacement or permanent relocation due to flooding, severe weather, extended drought, erosion, or other ecosystem changes;

(B) freshwater systems, including water resources for human consumption and agriculture and natural and managed ecosystems, flood and drought risks, and relative humidity;

(C) the carbon cycle, including impacts related to the thawing of permafrost, the frequency and intensity of wildfire, and terrestrial and ocean carbon sinks;

(D) ecosystems and animal and plant populations, including impacts on species abundance, phenology, and distribution;

(E) oceans and ocean ecosystems, including effects on sea level, ocean acidity, ocean temperatures, coral reefs, ocean circulation, fisheries, and other indicators of ocean ecosystem health;

(F) the cryosphere, including effects on ice sheet mass balance, mountain glacier mass balance, and sea-ice extent and volume;

(G) changes in the intensity, frequency, or distribution of severe weather events, including precipitation, tropical cyclones, tornadoes, and severe heat waves;

(H) agriculture and forest systems; and

(I) any other indicators the Administrator deems appropriate;

(4) summarize any significant socio-economic impacts of climate change in the United States, including the territories of the United States, drawing on work by Federal agencies and the academic literature, including impacts on—

(A) public health;

(B) economic livelihoods and subsistence;

(C) displacement or permanent relocation due to flooding, severe weather, extended drought, or other ecosystem changes;

(D) human infrastructure, including coastal infrastructure vulnerability to extreme events and sea level rise, river floodplain infrastructure, and sewer and water management systems;

(E) agriculture and forests, including effects on potential growing season, distribution, and yield;

(F) water resources for human consumption, agriculture and natural and managed ecosystems, flood and drought risks, and relative humidity;

(G) energy supply and use; and

(H) transportation;

(5) in assessing risks and impacts, use a risk management framework, including both qualitative and quantitative measures, to assess the observed and projected impacts of current and future climate change, accounting for—

(A) both monetized and non-monetized losses;

(B) potential nonlinear, abrupt, or essentially irreversible changes in the climate system;

(C) potential nonlinear increases in the cost of impacts;

(D) potential low-probability, high impact events; and

(E) whether impacts are transitory or essentially permanent; and

(6) based on the findings of the Administrator under this section, as well as assessments produced by the Intergovernmental Panel on Climate Change, the United States Global Change Research program, and other relevant scientific entities—

(A) describe increased risks to natural systems and society that would result from an increase in global average temperature 3.6 degrees Fahrenheit (2 degrees Celsius) above the pre-industrial average or an increase in atmos-

pheric greenhouse gas concentrations above 450 parts per million carbon dioxide equivalent; and

(B) identify and assess—

(i) significant residual risks not avoided by the thresholds described in subparagraph (A);

(ii) alternative thresholds or targets that may more effectively limit the risks identified pursuant to clause (i); and

(iii) thresholds above those described in subparagraph (A) which significantly increase the risk of certain impacts or render them essentially permanent.

(d) STATUS OF MONITORING AND VERIFICATION CAPABILITIES TO EVALUATE GREENHOUSE GAS REDUCTION EFFORTS.—The analysis required under subsection (a)(2) shall evaluate the capabilities of the monitoring, reporting, and verification systems used to quantify progress in achieving reductions in greenhouse gas emissions both globally and in the United States (as described in section 702), including—

(1) quantification of emissions and emission reductions by entities participating in the cap and trade program under this title;

(2) quantification of emissions and emission reductions by entities participating in the offset program under this title;

(3) quantification of emission and emissions reductions by entities regulated by performance standards;

(4) quantification of aggregate net emissions and emissions reductions by the United States; and

(5) quantification of global changes in net emissions and in sources and sinks of greenhouse gases.

(e) STATUS OF GREENHOUSE GAS REDUCTION EFFORTS.—The analysis required under subsection (a)(3) shall address—

(1) whether the programs under Safe Climate Act and other Federal statutes are resulting in sufficient United States greenhouse gas emissions reductions to meet the emissions reduction goals described in section 702, taking into account the use of offsets; and

(2) whether United States actions, taking into account international actions, commitments, and trends, and considering the range of plausible emissions scenarios, are sufficient to avoid—

(A) atmospheric greenhouse gas concentrations above 450 parts per million carbon dioxide equivalent;

(B) global average surface temperature 3.6 degrees Fahrenheit (2 degrees Celsius) above the pre-industrial average, or such other temperature thresholds as the Administrator deems appropriate; and

(C) other temperature or greenhouse gas thresholds identified pursuant to subsection (c)(6)(B).

(f) RECOMMENDATIONS.—

(1) LATEST SCIENTIFIC INFORMATION.—Based on the analysis described in subsection (a)(1), each report under subsection (a) shall identify actions that could be taken to—

(A) improve the characterization of changes in the earth-climate system and impacts of global climate change;

(B) better inform decision making and actions related to global climate change;

(C) mitigate risks to natural and social systems; and

(D) design policies to better account for climate risks.

(2) MONITORING, REPORTING AND VERIFICATION.—Based on the analysis described in subsection (a)(2), each report under subsection (a) shall identify key gaps in measurement, reporting, and verification capabilities and make recommendations to improve the accuracy and reliability of those capabilities.

(3) STATUS OF GREENHOUSE GAS REDUCTION EFFORTS.—Based on the analysis described in subsection (a)(3), taking into account international actions, commitments, and trends, and considering the range of plausible emissions scenarios, each report under subsection (a) shall identify—

(A) the quantity of additional reductions required to meet the emissions reduction goals in section 702;

(B) the quantity of additional reductions in global greenhouse gas emissions needed to avoid the concentration and temperature thresholds identified in subsection (e); and

(C) possible strategies and approaches for achieving additional reductions.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary.

SEC. 706. NATIONAL ACADEMY REVIEW.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this title, the Administrator shall offer to enter into a contract with the National Academy of Sciences (in this section referred to as the "Academy") under which the Academy shall, not later than July 1, 2014, and every 4 years thereafter, submit to Congress and the Administrator a report that includes—

(1) a review of the most recent report and recommendations issued under section 705; and

(2) an analysis of technologies to achieve reductions in greenhouse gas emissions.

(b) FAILURE TO ISSUE A REPORT.—In the event that the Administrator has not issued all or part of the most recent report required under section 705, the Academy shall conduct its own review and analysis of the required information.

(c) TECHNOLOGICAL INFORMATION.—The analysis required under subsection (a)(2) shall—

(1) review existing technological information and reports, including the most recent reports by the Department of Energy, the United States Global Change Research Program, the Intergovernmental Panel on Climate Change, and the International Energy Agency and any other relevant information on technologies or practices that reduce or limit greenhouse gas emissions;

(2) include the participation of technical experts from relevant private industry sectors;

(3) review the current and future projected deployment of technologies and practices in the United States that reduce or limit greenhouse gas emissions, including—

(A) technologies for capture and sequestration of greenhouse gases;

(B) technologies to improve energy efficiency;

(C) low- or zero-greenhouse gas emitting energy technologies;

(D) low- or zero-greenhouse gas emitting fuels;

(E) biological sequestration practices and technologies; and

(F) any other technologies the Academy deems relevant; and

(4) review and compare the emissions reduction potential, commercial viability, market penetration, investment trends, and deployment of the technologies described in paragraph (3), including—

(A) the need for additional research and development, including publicly funded research and development;

(B) the extent of commercial deployment, including, where appropriate, a comparison to the cost and level of deployment of conventional fossil fuel-fired energy technologies and devices; and

(C) an evaluation of any substantial technological, legal, or market-based barriers to commercial deployment.

(d) RECOMMENDATIONS.—

(1) LATEST SCIENTIFIC INFORMATION.—Based on the review described in subsection (a)(1), the Academy shall identify actions that could be taken to—

(A) improve the characterization of changes in the earth-climate system and impacts of global climate change;

(B) better inform decision making and actions related to global climate change;

(C) mitigate risks to natural and social systems;

(D) design policies to better account for climate risks; and

(E) improve the accuracy and reliability of capabilities to monitor, report, and verify greenhouse gas emissions reduction efforts.

(2) TECHNOLOGICAL INFORMATION.—Based on the analysis described in subsection (a)(2), the Academy shall identify—

(A) additional emissions reductions that may be possible as a result of technologies described in the analysis;

(B) barriers to the deployment of such technologies; and

(C) actions that could be taken to speed deployment of such technologies.

(3) STATUS OF GREENHOUSE GAS REDUCTION EFFORTS.—Based on the review described in subsection (a)(1), the Academy shall identify—

(A) the quantity of additional reductions required to meet the emissions reduction goals described in section 702; and

(B) the quantity of additional reductions in global greenhouse gas emissions needed to avoid the concentration and temperature thresholds described in section 705(c)(6)(A) or identified pursuant to section 705(c)(6)(B).

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary.

SEC. 707. PRESIDENTIAL RESPONSE AND RECOMMENDATIONS.

Not later than July 1, 2015, and every 4 years thereafter—

(1) the President shall direct relevant Federal agencies to use existing statutory authority to take appropriate actions identi-

fied in the reports submitted under sections 705 and 706 and to address any shortfalls identified in such reports; and

(2) in the event that the National Academy of Sciences has concluded, in the most recent report submitted under section 706, that the United States will not achieve the necessary domestic greenhouse gas emissions reductions, or that global actions will not maintain safe global average surface temperature and atmospheric greenhouse gas concentration thresholds, the President shall submit to Congress a plan identifying domestic and international actions that will achieve necessary additional greenhouse gas reductions, including any recommendations for legislative action.

PART B—DESIGNATION AND REGISTRATION OF GREENHOUSE GASES

SEC. 711. DESIGNATION OF GREENHOUSE GASES.

(a) GREENHOUSE GASES.—For purposes of this title, the following are greenhouse gases:

(1) Carbon dioxide.

(2) Methane.

(3) Nitrous oxide.

(4) Sulfur hexafluoride.

(5) Hydrofluorocarbons from a chemical manufacturing process at an industrial stationary source.

(6) Any perfluorocarbon.

(7) Nitrogen trifluoride.

(8) Any other anthropogenic gas designated as a greenhouse gas by the Administrator under this section.

(b) DETERMINATION ON ADMINISTRATOR'S INITIATIVE.—The Administrator shall, by rule—

(1) determine whether 1 metric ton of another anthropogenic gas makes the same or greater contribution to global warming over 100 years as 1 metric ton of carbon dioxide;

(2) determine the carbon dioxide equivalent value for each gas with respect to which the Administrator makes an affirmative determination under paragraph (1);

(3) for each gas with respect to which the Administrator makes an affirmative determination under paragraph (1) and that is used as a substitute for a class I or class II substance under title VI, determine the extent to which to regulate that gas under section 619 and specify appropriate compliance obligations under section 619;

(4) designate as a greenhouse gas for purposes of this title each gas for which the Administrator makes an affirmative determination under paragraph (1), to the extent that it is not regulated under section 619; and

(5) specify the appropriate compliance obligations under this title for each gas designated as a greenhouse gas under paragraph (4).

(c) PETITIONS TO DESIGNATE A GREENHOUSE GAS.—

(1) IN GENERAL.—Any person may petition the Administrator to designate as a greenhouse gas any anthropogenic gas 1 metric ton of which makes the same or greater contribution to global warming over 100 years as 1 metric ton of carbon dioxide.

(2) CONTENTS OF PETITION.—The petitioner shall provide sufficient data, as specified by rule by the Administrator, to demonstrate that the gas is likely to be a greenhouse gas and is likely to be produced, imported, used, or emitted in the United States. To the extent practicable, the petitioner shall also identify producers, importers, distributors, users, and emitters of the gas in the United States.

(3) REVIEW AND ACTION BY THE ADMINISTRATOR.—Not later than 90 days after receipt of a petition under paragraph (2), the Administrator shall determine whether the petition is complete and notify the petitioner and the public of the decision.

(4) ADDITIONAL INFORMATION.—The Administrator may require producers, importers, distributors, users, or emitters of the gas to provide information on the contribution of the gas to global warming over 100 years compared to carbon dioxide.

(5) TREATMENT OF PETITION.—For any substance used as a substitute for a class I or class II substance under title VI, the Administrator may elect to treat a petition under this subsection as a petition to list the substance as a class II, group II substance under section 619, and may require the petition to be amended to address listing criteria promulgated under that section.

(6) DETERMINATION.—Not later than 2 years after receipt of a complete petition, the Administrator shall, after notice and an opportunity for comment—

(A) issue and publish in the Federal Register—

(i) a determination that 1 metric ton of the gas does not make a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide; and

(ii) an explanation of the decision; or

(B) determine that 1 metric ton of the gas makes a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide, and take the actions described in subsection (b) with respect to such gas.

(7) GROUNDS FOR DENIAL.—The Administrator may not deny a petition under this subsection solely on the basis of inadequate Environmental Protection Agency resources or time for review.

(d) SCIENCE ADVISORY BOARD CONSULTATION.—

(1) CONSULTATION.—The Administrator shall—

(A) give notice to the Science Advisory Board prior to making a determination under subsection (b)(1), (c)(6), or (e)(2)(B);

(B) consider the written recommendations of the Science Advisory Board under paragraph (2) regarding the determination; and

(C) consult with the Science Advisory Board regarding such determination, including consultation subsequent to receipt of such written recommendations.

(2) FORMULATION OF RECOMMENDATIONS.—Upon receipt of notice under paragraph (1)(A) regarding a pending determination under subsection (b)(1), (c)(6), or (e)(2)(B), the Science Advisory Board shall—

(A) formulate recommendations regarding such determination, subject to a peer review process; and

(B) submit such recommendations in writing to the Administrator.

(e) MANUFACTURING AND EMISSION NOTICES.—

(1) NOTICE REQUIREMENT.—

(A) IN GENERAL.—Effective 24 months after the date of enactment of this title, no person may manufacture or introduce into interstate commerce a fluorinated gas, or emit a significant quantity, as determined by the Administrator, of any fluorinated gas that is generated as a byproduct during the production or use of another fluorinated gas, unless—

(i) the gas is designated as a greenhouse gas under this section or is an ozone-depleting substance listed as a class I or class II substance under title VI;

(ii) the Administrator has determined that 1 metric ton of such gas does not make a contribution to global warming that is equal to or greater than that made by 1 metric ton of carbon dioxide; or

(iii) the person manufacturing or importing the gas for distribution into interstate commerce, or emitting the gas, has submitted to the Administrator, at least 90 days before the start of such manufacture, introduction into commerce, or emission, a notice of such person's manufacture, introduction into commerce, or emission of such gas, and the Administrator has not determined that notice or a substantially similar notice is incomplete.

(B) ALTERNATIVE COMPLIANCE.—For a gas that is a substitute for a class I or class II substance under title VI and either has been listed as acceptable for use under section 612 or is currently subject to evaluation under section 612, the Administrator may accept the notice and information provided pursuant to that section as fulfilling the obligation under clause (iii) of subparagraph (A).

(2) REVIEW AND ACTION BY THE ADMINISTRATOR.—

(A) COMPLETENESS.—Not later than 90 days after receipt of notice under paragraph (1)(A)(iii) or (B), the Administrator shall determine whether the notice is complete.

(B) DETERMINATION.— If the Administrator determines that the notice is complete, the Administrator shall, after notice and an opportunity for comment, not later than 12 months after receipt of the notice—

(i) issue and publish in the Federal Register a determination that 1 metric ton of the gas does not make a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide and an explanation of the decision; or

(ii) determine that 1 metric ton of the gas makes a contribution to global warming over 100 years that is equal to or greater than that made by 1 metric ton of carbon dioxide, and take the actions described in subsection (b) with respect to such gas.

(f) REGULATIONS.—Not later than one year after the date of enactment of this title, the Administrator shall promulgate regulations to carry out this section. Such regulations shall include—

(1) requirements for the contents of a petition submitted under subsection (c);

(2) requirements for the contents of a notice required under subsection (e); and

(3) methods and standards for evaluating the carbon dioxide equivalent value of a gas.

(g) GASES REGULATED UNDER TITLE VI.—The Administrator shall not designate a gas as a greenhouse gas under this section to the extent that the gas is regulated under title VI.

(h) SAVINGS CLAUSE.—Nothing in this section shall be interpreted to relieve any person from complying with the requirements of section 612.

SEC. 712. CARBON DIOXIDE EQUIVALENT VALUE OF GREENHOUSE GASES.

(a) MEASURE OF QUANTITY OF GREENHOUSE GASES.—Any provision of this title or title VIII that refers to a quantity or percentage of a quantity of greenhouse gases shall mean the quantity or percentage of the greenhouse gases expressed in carbon dioxide equivalents.

(b) INITIAL VALUE.—Except as provided by the Administrator under this section or section 711—

(1) the carbon dioxide equivalent value of greenhouse gases for purposes of this Act shall be as follows:

CARBON DIOXIDE EQUIVALENT OF 1 TON OF LISTED GREENHOUSE GASES

Greenhouse gas (1 metric ton)	***Carbon dioxide equivalent (metric tons)***
Carbon dioxide	*1*
Methane	*25*
Nitrous oxide	*298*
HFC-23	*14,800*
HFC-125	*3,500*
HFC-134a	*1,430*
HFC-143a	*4,470*
HFC-152a	*124*
HFC-227ea	*3,220*
HFC-236fa	*9,810*
HFC-4310mee	*1,640*
CF_4	*7,390*
C_2F_6	*12,200*
C_4F_{10}	*8,860*

***CARBON DIOXIDE EQUIVALENT OF 1 TON OF LISTED GREENHOUSE GASES*—Continued**

Greenhouse gas (1 metric ton)	*Carbon dioxide equivalent (metric tons)*
C_6F_{14}	*9,300*
SF_6	*22,800*
NF_3	*17,200*

; and

(2) the carbon dioxide equivalent value for purposes of this Act for any greenhouse gas not listed in the table under paragraph (1) shall be the 100-year Global Warming Potentials provided in the Intergovernmental Panel on Climate Change Fourth Assessment Report.

(c) PERIODIC REVIEW.—

(1) Not later than February 1, 2017, and (except as provided in paragraph (3)) not less than every 5 years thereafter, the Administrator shall—

(A) review and, if appropriate, revise the carbon dioxide equivalent values established under this section or section 711(b)(2), based on a determination of the number of metric tons of carbon dioxide that makes the same contribution to global warming over 100 years as 1 metric ton of each greenhouse gas; and

(B) publish in the Federal Register the results of that review and any revisions.

(2) A revised determination published in the Federal Register under paragraph (1)(B) shall take effect for greenhouse gas emissions starting on January 1 of the first calendar year starting at least 9 months after the date on which the revised determination was published.

(3) The Administrator may decrease the frequency of review and revision under paragraph (1) if the Administrator determines that such decrease is appropriate in order to synchronize such review and revision with any similar review process carried out pursuant to the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, or to an agreement negotiated under that convention, except that in no event shall the Administrator carry out such review and revision any less frequently than every 10 years.

(d) METHODOLOGY.—In setting carbon dioxide equivalent values, for purposes of this section or section 711, the Administrator shall take into account publications by the Intergovernmental Panel on Climate Change or a successor organization under the auspices of the United Nations Environmental Programme and the World Meteorological Organization.

SEC. 713. GREENHOUSE GAS REGISTRY.

(a) DEFINITIONS.—For purposes of this section:

(1) CLIMATE REGISTRY.—The term "Climate Registry" means the greenhouse gas emissions registry jointly established and managed by more than 40 States and Indian tribes in 2007 to collect high-quality greenhouse gas emission data from facili-

ties, corporations, and other organizations to support various greenhouse gas emission reporting and reduction policies for the member States and Indian tribes.

(2) REPORTING ENTITY.—The term "reporting entity" means—

(A) a covered entity;

(B) an entity that—

(i) would be a covered entity if it had emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level in the definition of covered entity in paragraph (13) of section 700; and

(ii) has emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level in the definition of covered entity in paragraph (13) of section 700, provided that the figure of 25,000 tons of carbon dioxide equivalent is read instead as 10,000 tons of carbon dioxide equivalent and the figure of 460,000,000 cubic feet is read instead as 184,000,000 cubic feet;

(C) any other entity that emits a greenhouse gas, or produces, imports, manufactures, or delivers material whose use results or may result in greenhouse gas emissions if the Administrator determines that reporting under this section by such entity will help achieve the purposes of this title or title VIII;

(D) any vehicle fleet with emissions of more than 25,000 tons of carbon dioxide equivalent on an annual basis, if the Administrator determines that the inclusion of such fleet will help achieve the purposes of this title or title VIII; or

(E) any entity that delivers electricity to an energy-intensive facility in an industrial sector that meets the energy or greenhouse gas intensity criteria in section 764(b)(2)(A)(i).

(b) REGULATIONS.—

(1) IN GENERAL.—Not later than 6 months after the date of enactment of this title, the Administrator shall issue regulations establishing a Federal greenhouse gas registry. Such regulations shall—

(A) require reporting entities to submit to the Administrator data on—

(i) greenhouse gas emissions in the United States;

(ii) the production and manufacture in the United States, importation into the United States, and, at the discretion of the Administrator, exportation from the United States, of fuels and industrial gases the uses of which result or may result in greenhouse gas emissions;

(iii) deliveries in the United States of natural gas, and any other gas meeting the specifications for commingling with natural gas for purposes of delivery, the combustion of which result or may result in greenhouse gas emissions; and

(iv) the capture and sequestration of greenhouse gases;

(B) require covered entities and, where appropriate, other reporting entities to submit to the Administrator data suffi-

cient to ensure compliance with or implementation of the requirements of this title;

(C) require reporting of electricity delivered to industrial sources in energy-intensive industries;

(D) ensure the completeness, consistency, transparency, accuracy, precision, and reliability of such data;

(E) take into account the best practices from the most recent Federal, State, tribal, and international protocols for the measurement, accounting, reporting, and verification of greenhouse gas emissions, including protocols from the Climate Registry and other mandatory State or multistate authorized programs;

(F) take into account the latest scientific research;

(G) require that, for covered entities with respect to greenhouse gases to which section 722 applies, and, to the extent determined to be appropriate by the Administrator, for covered entities with respect to other greenhouse gases and for other reporting entities, submitted data are based on—

(i) continuous monitoring systems for fuel flow or emissions, such as continuous emission monitoring systems;

(ii) alternative systems that are demonstrated as providing data with the same precision, reliability, accessibility, and timeliness, or, to the extent the Administrator determines is appropriate for reporting small amounts of emissions, the same precision, reliability, and accessibility and similar timeliness, as data provided by continuous monitoring systems for fuel flow or emissions; or

(iii) alternative methodologies that are demonstrated to provide data with precision, reliability, accessibility, and timeliness, or, to the extent the Administrator determines is appropriate for reporting small amounts of emissions, precision, reliability, and accessibility, as similar as is technically feasible to that of data generally provided by continuous monitoring systems for fuel flow or emissions, if the Administrator determines that, with respect to a reporting entity, there is no continuous monitoring system or alternative system described in clause (i) or (ii) that is technically feasible;

(H) require that the Administrator, in determining the extent to which the requirement to use systems or methodologies in accordance with subparagraph (G) is appropriate for reporting entities other than covered entities or for greenhouse gases to which section 722 does not apply, consider the cost of using such systems and methodologies, and of using other systems and methodologies that are available and suitable, for quantifying the emissions involved in light of the purposes of this title, including the goal of collecting consistent entity-wide data;

(I) include methods for minimizing double reporting and avoiding irreconcilable double reporting of greenhouse gas emissions;

(J) establish measurement protocols for carbon capture and sequestration systems, taking into consideration the regulations promulgated under section 813;

(K) require that reporting entities provide the data required under this paragraph in reports submitted electronically to the Administrator, in such form and containing such information as may be required by the Administrator;

(L) include requirements for keeping records supporting or related to, and protocols for auditing, submitted data;

(M) establish consistent policies for calculating carbon content and greenhouse gas emissions for each type of fossil fuel with respect to which reporting is required;

(N) subsequent to implementation of policies developed under subparagraph (M), provide for immediate dissemination, to States, Indian tribes, and on the Internet, of all data reported under this section as soon as practicable after electronic audit by the Administrator and any resulting correction of data, except that data shall not be disseminated under this subparagraph if—

(i) its nondissemination is vital to the national security of the United States, as determined by the President; or

(ii) it is confidential business information that cannot be derived from information that is otherwise publicly available and that would cause significant calculable competitive harm if published, except that—

(I) data relating to greenhouse gas emissions, including any upstream or verification data from reporting entities, shall not be considered to be confidential business information; and

(II) data that is confidential business information shall be provided to a State or Indian tribe within whose jurisdiction the reporting entity is located, if the Administrator determines that such State or Indian tribe has in effect protections for confidential business information that are equivalent to protections applicable to the Federal Government;

(O) prescribe methods by which the Administrator shall, in cases in which satisfactory data are not submitted to the Administrator for any period of time, estimate emission, production, importation, manufacture, or delivery levels—

(i) for covered entities with respect to greenhouse gas emissions, production, importation, manufacture, or delivery regulated under this title to ensure that emissions, production, importation, manufacture, or deliveries are not underreported, and to create a strong incentive for meeting data monitoring and reporting requirements—

(I) with a conservative estimate of the highest emission, production, importation, manufacture, or delivery levels that may have occurred during the period for which data are missing; or

(II) to the extent the Administrator considers appropriate, with an estimate of such levels assum-

ing the unit is emitting, producing, importing, manufacturing, or delivering at a maximum potential level during the period, in order to ensure that such levels are not underreported and to create a strong incentive for meeting data monitoring and reporting requirements; and

(ii) for covered entities with respect to greenhouse gas emissions to which section 722 does not apply and for other reporting entities, with a reasonable estimate of the emission, production, importation, manufacture, or delivery levels that may have occurred during the period for which data are missing;

(P) require the designation of a designated representative for each reporting entity;

(Q) require an appropriate certification, by the designated representative for the reporting entity, of accurate and complete accounting of greenhouse gas emissions, as determined by the Administrator; and

(R) include requirements for other data necessary for accurate and complete accounting of greenhouse gas emissions, as determined by the Administrator, including data for quality assurance of monitoring systems, monitors and other measurement devices, and other data needed to verify reported emissions, production, importation, manufacture, or delivery.

(2) TIMING.—

(A) CALENDAR YEARS 2007 THROUGH 2010.—For a base period of calendar years 2007 through 2010, each reporting entity shall submit annual data required under this section to the Administrator not later than March 31, 2011. The Administrator may waive or modify reporting requirements for calendar years 2007 through 2010 for categories of reporting entities to the extent that the Administrator determines that the reporting entities did not keep data or records necessary to meet reporting requirements. The Administrator may, in addition to or in lieu of such requirements, collect information on energy consumption and production.

(B) SUBSEQUENT CALENDAR YEARS.—For calendar year 2011 and each subsequent calendar year, each reporting entity shall submit quarterly data required under this section to the Administrator not later than 60 days after the end of the applicable quarter, except when the data is already being reported to the Administrator on an earlier timeframe for another program.

(3) WAIVER OF REPORTING REQUIREMENTS.—The Administrator may waive reporting requirements under this section for specific entities to the extent that the Administrator determines that sufficient and equally or more reliable verified and timely data are available to the Administrator and the public on the Internet under other mandatory statutory requirements.

(4) ALTERNATIVE THRESHOLD.—The Administrator may, by rule, establish applicability thresholds for reporting under this section using alternative metrics and levels, provided that such

metrics and levels are easier to administer and cover the same size and type of sources as the threshold defined in this section.

(c) INTERRELATIONSHIP WITH OTHER SYSTEMS.—In developing the regulations issued under subsection (b), the Administrator shall take into account the work done by the Climate Registry and other mandatory State or multistate programs. Such regulations shall include an explanation of any major differences in approach between the system established under the regulations and such registries and programs.

PART C—PROGRAM RULES

SEC. 721. EMISSION ALLOWANCES.

(a) IN GENERAL.—The Administrator shall establish a separate quantity of emission allowances for each calendar year starting in 2012, in the amounts prescribed under subsection (e).

(b) IDENTIFICATION NUMBERS.—The Administrator shall assign to each emission allowance established under subsection (a) a unique identification number that includes the vintage year for that emission allowance.

(c) LEGAL STATUS OF EMISSION ALLOWANCES.—

(1) IN GENERAL.—An allowance established by the Administrator under this title does not constitute a property right.

(2) TERMINATION OR LIMITATION.—Nothing in this Act or any other provision of law shall be construed to limit or alter the authority of the United States, including the Administrator acting pursuant to statutory authority, to terminate or limit allowances or offset credits.

(3) OTHER PROVISIONS UNAFFECTED.—Except as otherwise specified in this Act, nothing in this Act relating to allowances or offset credits established or issued under this title shall affect the application of any other provision of law to a covered entity, or the responsibility for a covered entity to comply with any such provision of law.

(d) SAVINGS PROVISION.—Nothing in this part shall be construed as requiring a change of any kind in any State law regulating electric utility rates and charges, or as affecting any State law regarding such State regulation, or as limiting State regulation (including any prudency review) under such a State law. Nothing in this part shall be construed as modifying the Federal Power Act or as affecting the authority of the Federal Energy Regulatory Commission under that Act. Nothing in this part shall be construed to interfere with or impair any program for competitive bidding for power supply in a State in which such program is established.

(e) ALLOWANCES FOR EACH CALENDAR YEAR.—

(1) IN GENERAL.—Except as provided in paragraph (2), the number of emission allowances established by the Administrator under subsection (a) for each calendar year shall be as provided in the following table:

Calendar year	***Emission allowances (in millions)***
2012	*4,627*
2013	*4,544*

Calendar year	*Emission allowances (in millions)*
2014	*5,099*
2015	*5,003*
2016	*5,482*
2017	*5,375*
2018	*5,269*
2019	*5,162*
2020	*5,056*
2021	*4,903*
2022	*4,751*
2023	*4,599*
2024	*4,446*
2025	*4,294*
2026	*4,142*
2027	*3,990*
2028	*3,837*
2029	*3,685*
2030	*3,533*
2031	*3,408*
2032	*3,283*
2033	*3,158*
2034	*3,033*
2035	*2,908*
2036	*2,784*
2037	*2,659*
2038	*2,534*
2039	*2,409*
2040	*2,284*
2041	*2,159*
2042	*2,034*
2043	*1,910*
2044	*1,785*
2045	*1,660*
2046	*1,535*
2047	*1,410*
2048	*1,285*
2049	*1,160*
2050 and each year thereafter	*1,035*

(2) REVISION.—

(A) IN GENERAL.—The Administrator may adjust, in accordance with subparagraph (B), the number of emission allowances established pursuant to paragraph (1) if, after notice and an opportunity for public comment, the Administrator determines that—

(i) United States greenhouse gas emissions in 2005 were other than 7,206 million metric tons carbon dioxide equivalent;

(ii) if the requirements of this title for 2012 had been in effect in 2005, section 722 would have required emission allowances to be held for other than 66.2 percent of United States greenhouse gas emissions in 2005;

(iii) if the requirements of this title for 2014 had been in effect in 2005, section 722 would have required emission allowances to be held for other than 75.7 percent of United States greenhouse gas emissions in 2005; or

(iv) if the requirements of this title for 2016 had been in effect in 2005, section 722 would have required

emission allowances to be held for other than 84.5 percent United States greenhouse gas emissions in 2005.

(B) ADJUSTMENT FORMULA.—

(i) IN GENERAL.—If the Administrator adjusts under this paragraph the number of emission allowances established pursuant to paragraph (1), the number of emission allowances the Administrator establishes for any given calendar year shall equal the product of—

(I) United States greenhouse gas emissions in 2005, expressed in tons of carbon dioxide equivalent;

(II) the percent of United States greenhouse gas emissions in 2005, expressed in tons of carbon dioxide equivalent, that would have been subject to section 722 if the requirements of this title for the given calendar year had been in effect in 2005; and

(III) the percentage set forth for that calendar year in section 703(a), or determined under clause (ii) of this subparagraph.

(ii) TARGETS.—In applying the portion of the formula in clause (i)(III) of this subparagraph, for calendar years for which a percentage is not listed in section 703(a), the Administrator shall use a uniform annual decline in the amount of emissions between the years that are specified.

(iii) CARBON DIOXIDE EQUIVALENT VALUE.—If the Administrator adjusts under this paragraph the number of emission allowances established pursuant to paragraph (1), the Administrator shall use the carbon dioxide equivalent values established pursuant to section 712.

(iv) LIMITATION ON ADJUSTMENT TIMING.—Once a calendar year has started, the Administrator may not adjust the number of emission allowances to be established for that calendar year.

(C) LIMITATION ON ADJUSTMENT AUTHORITY.—The Administrator may adjust under this paragraph the number of emission allowances to be established pursuant to paragraph (1) only once.

(f) COMPENSATORY ALLOWANCE.—

(1) IN GENERAL.—The regulations promulgated under subsection (h) shall provide for the establishment and distribution of compensatory allowances for—

(A) the destruction, in 2012 or later, of fluorinated gases that are greenhouse gases if—

(i) allowances or offset credits were retired for their production or importation; and

(ii) such gases are not required to be destroyed under any other provision of law;

(B) the nonemissive use, in 2012 or later, of petroleum-based or coal-based liquid or gaseous fuel, petroleum coke, natural gas liquid, or natural gas as a feedstock, if allowances or offset credits were retired for the greenhouse gases that would have been emitted from their combustion; and

(C) the conversionary use, in 2012 or later, of fluorinated gases in a manufacturing process, including semiconductor research or manufacturing, if allowances or offset credits were retired for the production or importation of such gas.

(2) ESTABLISHMENT AND DISTRIBUTION.—

(A) IN GENERAL.—Not later than 90 days after the end of each calendar year, the Administrator shall establish and distribute to the entity taking the actions described in subparagraph (A), (B), or (C) of paragraph (1) a quantity of compensatory allowances equivalent to the number of tons of carbon dioxide equivalent of avoided emissions achieved through such actions. In establishing the quantity of compensatory allowances, the Administrator shall take into account the carbon dioxide equivalent value of any greenhouse gas resulting from such action.

(B) SOURCE OF ALLOWANCES.—Compensatory allowances established under this subsection shall not be emission allowances established under subsection (a).

(C) IDENTIFICATION NUMBERS.—The Administrator shall assign to each compensatory allowance established under subparagraph (A) a unique identification number.

(3) DEFINITIONS.—For purposes of this subsection—

(A) the term "destruction" means the conversion of a greenhouse gas by thermal, chemical, or other means to another gas or set of gases with little or no carbon dioxide equivalent value;

(B) the term "nonemissive use" means the use of fossil fuel as a feedstock in an industrial or manufacturing process to the extent that greenhouse gases are not emitted from such process, and to the extent that the products of such process are not intended for use as, or to be contained in, a fuel; and

(C) the term "conversionary use" means the conversion during research or manufacturing of a fluorinated gas into another greenhouse gas or set of gases with a lower carbon dioxide equivalent value.

(4) FEEDSTOCK EMISSIONS STUDY.—

(A) The Administrator may conduct a study to determine the extent to which petroleum-based or coal-based liquid or gaseous fuel, petroleum coke, natural gas liquid, or natural gas are used as feedstocks in manufacturing processes to produce products and the greenhouse gas emissions resulting from such uses.

(B) If as a result of such a study, the Administrator determines that the use of such products by noncovered sources results in substantial emissions of greenhouse gases or their precursors and that such emissions have not been adequately addressed under other requirements of this Act, the Administrator may, after notice and comment rulemaking, promulgate a regulation reducing compensatory allowances commensurately if doing so will not result in leakage.

(g) FLUORINATED GASES ASSESSMENT.—No later than March 31, 2014, the Administrator shall conduct an assessment of the regulation of non-HFC fluorinated gases under this title to determine

whether the most appropriate point of regulation is at the gas manufacturer or importer level, or at the source of emissions downstream. If the Administrator determines, based on consideration of environmental effectiveness, cost effectiveness, administrative feasibility, extent of coverage of emissions, and competitiveness considerations, that emissions of non-HFC fluorinated gases can best be regulated by designating downstream emission sources as covered entities with compliance obligations under section 722, the Administrator shall, after notice and comment rulemaking, change the definition of covered entity with respect to fluorinated gases (other than HFCs) accordingly and establish such requirements as are necessary to ensure compliance for such entities with the requirements of this title.

(h) REGULATIONS.—Not later than 24 months after the date of enactment of this title, the Administrator shall promulgate regulations to carry out the provisions of this title.

SEC. 722. PROHIBITION OF EXCESS EMISSIONS.

(a) PROHIBITION.—Except as provided in subsection (c), effective January 1, 2012, each covered entity is prohibited from emitting greenhouse gases, and having attributable greenhouse gas emissions, in combination, in excess of its allowable emissions level. A covered entity's allowable emissions level for each calendar year is the number of emission allowances (or credits or other allowances as provided in subsection (d)) it holds as of 12:01 a.m. on April 1 (or a later date established by the Administrator under subsection (j)) of the following calendar year.

(b) METHODS OF DEMONSTRATING COMPLIANCE.—Except as otherwise provided in this section, the owner or operator of a covered entity shall not be considered to be in compliance with the prohibition in subsection (a) unless, as of 12:01 a.m. on April 1 (or a later date established by the Administrator under subsection (j)) of each calendar year starting in 2013, the owner or operator holds a quantity of emission allowances (or credits or other allowances as provided in subsection (d)) at least as great as the quantity calculated as follows:

(1) ELECTRICITY SOURCES.—For a covered entity described in section 700(13)(A), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that such covered entity emitted in the previous calendar year, excluding emissions resulting from the combustion of—

(A) petroleum-based or coal-based liquid fuel;

(B) natural gas liquid;

(C) renewable biomass or gas derived from renewable biomass; or

(D) petroleum coke or gas derived from petroleum coke.

(2) FUEL PRODUCERS AND IMPORTERS.—For a covered entity described in section 700(13)(B), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that would be emitted from the combustion of any petroleum-based or coal-based liquid fuel, petroleum coke, or natural gas liquid, produced or imported by such covered entity during the previous calendar year for sale or distribution in interstate commerce, assuming no capture and sequestration of any greenhouse gas emissions.

(3) INDUSTRIAL GAS PRODUCERS AND IMPORTERS.—For a covered entity described in section 700(13)(C), 1 emission allowance for each ton of carbon dioxide equivalent of fossil fuel-based carbon dioxide, nitrous oxide, or any other fluorinated gas that is a greenhouse gas (except for nitrogen trifluoride), or any combination thereof, produced or imported by such covered entity during the previous calendar year for sale or distribution in interstate commerce or released as fugitive emissions in the production of fluorinated gas.

(4) NITROGEN TRIFLUORIDE SOURCES.—For a covered entity described in section 700(13)(D), 1 emission allowance for each ton of carbon dioxide equivalent of nitrogen trifluoride that such covered entity emitted in the previous calendar year.

(5) GEOLOGICAL SEQUESTRATION SITES.—For a covered entity described in section 700(13)(E), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that such covered entity emitted in the previous calendar year.

(6) INDUSTRIAL STATIONARY SOURCES.—For a covered entity described in section 700(13)(F), (G), or (H), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that such covered entity emitted in the previous calendar year, excluding emissions resulting from—

(A) the combustion of petroleum-based or coal-based liquid fuel;

(B) the combustion of natural gas liquid;

(C) the combustion of renewable biomass or gas derived from renewable biomass;

(D) the combustion of petroleum coke or gas derived from petroleum coke; or

(E) the use of any fluorinated gas that is a greenhouse gas purchased for use at that covered entity, except for nitrogen trifluoride.

(7) INDUSTRIAL FOSSIL FUEL-FIRED COMBUSTION DEVICES.—For a covered entity described in section 700(13)(I), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that the devices emitted in the previous calendar year, excluding emissions resulting from the combustion of—

(A) petroleum-based or coal-based liquid fuel;

(B) natural gas liquid;

(C) renewable biomass or gas derived from renewable biomass; or

(D) petroleum coke or gas derived from petroleum coke.

(8) NATURAL GAS LOCAL DISTRIBUTION COMPANIES.—For a covered entity described in section 700(13)(J), 1 emission allowance for each ton of carbon dioxide equivalent of greenhouse gas that would be emitted from the combustion of the natural gas, and any other gas meeting the specifications for commingling with natural gas for purposes of delivery, that such entity delivered during the previous calendar year to customers that are not covered entities, assuming no capture and sequestration of that greenhouse gas.

(9) ALGAE-BASED FUELS.—Where carbon dioxide (or another greenhouse gas) is used as an input in the production of algae-based fuels, the Administrator shall ensure that allowances are required to be held either for the carbon dioxide used to grow

the algae or for the carbon dioxide emitted from combustion of the fuel produced from such algae, but not for both.

(10) FUGITIVE EMISSIONS.—The greenhouse gas emissions to which paragraphs (1), (4), (6), and (7) apply shall not include fugitive emissions of greenhouse gas, except to the extent the Administrator determines that data on the carbon dioxide equivalent value of greenhouse gas in the fugitive emissions can be provided with sufficient precision, reliability, accessibility, and timeliness to ensure the integrity of emission allowances, the allowance tracking system, and the cap on emissions.

(11) EXPORT EXEMPTION.—This section shall not apply to any petroleum-based or coal-based liquid fuel, petroleum coke, natural gas liquid, fossil fuel-based carbon dioxide, nitrous oxide, or fluorinated gas that is exported for sale or use.

(12) NATURAL GAS LIQUIDS.—Notwithstanding subsection (a), if the owner or operator of a covered entity described in section 700(13)(B) that produces natural gas liquids does not take ownership of the liquids, and is not responsible for the distribution or use of the liquids in commerce, the owner of the liquids shall be responsible for compliance with this section, section 723, and other relevant sections of this title with respect to such liquids. In the regulations promulgated under section 721, the Administrator shall include such provisions with respect to such liquids as the Administrator determines are appropriate to determine and ensure compliance, and to penalize noncompliance. In such a case, the owner of the covered entity shall provide to the Administrator, in a manner to be determined by the Administrator, information regarding the quantity and ownership of liquids produced at the covered entity.

(13) APPLICATION OF MULTIPLE PARAGRAPHS.—For a covered entity to which more than 1 of paragraphs (1) through (8) apply, all applicable paragraphs shall apply, except that not more than 1 emission allowance shall be required for the same emission.

(c) PHASE-IN OF PROHIBITION.—

(1) INDUSTRIAL STATIONARY SOURCES.—The prohibition under subsection (a) shall first apply to a covered entity described in section 700(13)(D), (F), (G), (H), or (I), with respect to emissions occurring during calendar year 2014.

(2) NATURAL GAS LOCAL DISTRIBUTION COMPANIES.—The prohibition under subsection (a) shall first apply to a covered entity described in section 700(13)(J) with respect to deliveries occurring during calendar year 2016.

(d) ADDITIONAL METHODS.—In addition to using the method of compliance described in subsection (b), a covered entity may do the following:

(1) OFFSET CREDITS.—

(A) IN GENERAL.—Covered entities collectively may, in accordance with this paragraph, use offset credits to demonstrate compliance for up to a maximum of 2 billion tons of greenhouse gas emissions annually. The ability to demonstrate compliance with offset credits shall be divided pro rata among covered entities by allowing each covered entity to satisfy a percentage of the number of allowances required to be held under subsection (b) to demonstrate compliance

by holding 1 domestic offset credit or 1.25 international offset credits in lieu of an emission allowance, except as provided in subparagraph (D).

(B) APPLICABLE PERCENTAGE.—The percentage referred to in subparagraph (A) for a given calendar year shall be determined by dividing 2 billion by the sum of 2 billion plus the number of emission allowances established under section 721(a) for the previous year, and multiplying that number by 100. Not more than one half of the applicable percentage under this paragraph may be used by holding domestic offset credits, and not more than one half of the applicable percentage under this paragraph may be used by holding international offset credits, except as provided in subparagraph (C).

(C) MODIFIED PERCENTAGES.—If the Administrator determines that domestic offset credits available for use in demonstrating compliance in any calendar year at domestic offset prices generally equal to or less than allowance prices, are likely to offset less than 0.9 billion tons of greenhouse gas emissions (measured in tons of carbon dioxide equivalents), the Administrator shall increase the percent of emissions that can be offset through the use of international offset credits (and decrease the percent of emissions that can be allowed through the use of domestic offset credits by the same amount) to reflect the amount that 1.0 billion exceeds the number of domestic offset credits the Administrator determines is available for that year, up to a maximum of 0.5 billion tons of greenhouse gas emissions.

(D) INTERNATIONAL OFFSET CREDITS.—Notwithstanding subparagraph (A), to demonstrate compliance prior to calendar year 2018, a covered entity may use 1 international offset credit in lieu of an emission allowance up to the amount permitted under this paragraph.

(E) PRESIDENT'S RECOMMENDATION.—The President may make a recommendation to Congress as to whether the number 2 billion specified in subparagraphs (A) and (B) should be increased or decreased.

(2) INTERNATIONAL EMISSION ALLOWANCES.—To demonstrate compliance, a covered entity may hold an international emission allowance in lieu of an emission allowance, except as modified under section 728(d).

(3) COMPENSATORY ALLOWANCES.—To demonstrate compliance, a covered entity may hold a compensatory allowance obtained under section 721(f) in lieu of an emission allowance.

(e) RETIREMENT OF ALLOWANCES AND CREDITS.—As soon as practicable after a deadline established for covered entities to demonstrate compliance with this title, the Administrator shall retire the quantity of allowances or credits required to be held under this title.

(f) ALTERNATIVE METRICS.—For categories of covered entities described in subparagraph (B), (C), (D), (G), (H), or (I) of section 700(13), the Administrator may, by rule, establish an applicability threshold for inclusion under those subparagraphs using an alternative metric and level, provided that such metric and level are

easier to administer and cover the same size and type of sources as the threshold defined in such subparagraphs.

(g) THRESHOLD REVIEW.—For each category of covered entities described in subparagraph (B), (C), (D), (G), (H), or (I) of section 700(13), the Administrator shall, in 2020 and once every 8 years thereafter, review the carbon dioxide equivalent emission thresholds that are used to define covered entities. After consideration of—

(1) emissions from covered entities in each such category, and from other entities of the same type that emit less than the threshold amount for the category (including emission sources that commence operation after the date of enactment of this title that are not covered entities); and

(2) whether greater greenhouse gas emission reductions can be cost-effectively achieved by lowering the applicable threshold, the Administrator may by rule lower such threshold to not less than 10,000 tons of carbon dioxide equivalent emissions. In determining the cost effectiveness of potential reductions from lowering the threshold for covered entities, the Administrator shall consider alternative regulatory greenhouse gas programs, including setting standards under other titles of this Act.

(h) DESIGNATED REPRESENTATIVES.—The regulations promulgated under section 721(h) shall require that each covered entity, and each entity holding allowances or credits or receiving allowances or credits from the Administrator under this title, select a designated representative.

(i) EDUCATION AND OUTREACH.—

(1) IN GENERAL.—The Administrator shall establish and carry out a program of education and outreach to assist covered entities, especially entities having little experience with environmental regulatory requirements similar or comparable to those under this title, in preparing to meet the compliance obligations of this title. Such program shall include education with respect to using markets to effectively achieve such compliance.

(2) FAILURE TO RECEIVE INFORMATION.—A failure to receive information or assistance under this subsection may not be used as a defense against an allegation of any violation of this title.

(j) ADJUSTMENT OF DEADLINE.—The Administrator may, by rule, establish a deadline for demonstrating compliance, for a calendar year, later than the date provided in subsection (a), as necessary to ensure the availability of emissions data, but in no event shall the deadline be later than June 1.

(k) NOTICE REQUIREMENT FOR COVERED ENTITIES RECEIVING NATURAL GAS FROM NATURAL GAS LOCAL DISTRIBUTION COMPANIES.—The owner or operator of a covered entity that takes delivery of natural gas from a natural gas local distribution company shall, not later than September 1 of each calendar year, notify such natural gas local distribution company in writing that such entity will qualify as a covered entity under this title for that calendar year.

(l) COMPLIANCE OBLIGATION.—For purposes of this title, the year of a compliance obligation is the year in which compliance is determined, not the year in which the greenhouse gas emissions occur or the covered entity has attributable greenhouse gas emissions.

SEC. 723. PENALTY FOR NONCOMPLIANCE.

(a) ENFORCEMENT.—A violation of any prohibition of, requirement of, or regulation promulgated pursuant to this title shall be a viola-

tion of this Act. It shall be a violation of this Act for a covered entity to emit greenhouse gases, and have attributable greenhouse gas emissions, in combination, in excess of its allowable emissions level as provided in section 722(a). Each ton of carbon dioxide equivalent for which a covered entity fails to demonstrate compliance under section 722(b) shall be a separate violation.

(b) EXCESS EMISSIONS PENALTY.—

(1) IN GENERAL.—The owner or operator of any covered entity that fails for any year to comply, on the deadline described in section 722(a) or (j), shall be liable for payment to the Administrator of an excess emissions penalty in the amount described in paragraph (2).

(2) AMOUNT.—The amount of an excess emissions penalty required to be paid under paragraph (1) shall be equal to the product obtained by multiplying—

(A) the tons of carbon dioxide equivalent of greenhouse gas emissions or attributable greenhouse gas emissions for which the owner or operator of a covered entity failed to comply under section 722(b) on the deadline; by

(B) twice the fair market value of emission allowances established for emissions occurring in the calendar year for which the emission allowances were due.

(3) TIMING.—An excess emissions penalty required under this subsection shall be immediately due and payable to the Administrator, without demand, in accordance with regulations promulgated by the Administrator, which shall be issued not later than 2 years after the date of enactment of this title.

(4) NO EFFECT ON LIABILITY.—An excess emissions penalty due and payable by the owners or operators of a covered entity under this subsection shall not diminish the liability of the owners or operators for any fine, penalty, or assessment against the owners or operators for the same violation under any other provision of this Act or any other law.

(c) EXCESS EMISSIONS ALLOWANCES.—The owner or operator of a covered entity that fails for any year to comply on the deadline described in section 722(a) or (j) shall be liable to offset the covered entity's excess combination of greenhouse gases emitted and attributable greenhouse gas emissions by an equal quantity of emission allowances during the following calendar year, or such longer period as the Administrator may prescribe. During the year in which the covered entity failed to comply, or any year thereafter, the Administrator may deduct the emission allowances required under this subsection to offset the covered entity's excess actual or attributable emissions.

SEC. 724. TRADING.

(a) PERMITTED TRANSACTIONS.—Except as otherwise provided in this title, the lawful holder of an emission allowance, compensatory allowance, or offset credit may, without restriction, sell, exchange, transfer, hold for compliance in accordance with section 722, or request that the Administrator retire the emission allowance, compensatory allowance, or offset credit.

(b) NO RESTRICTION ON TRANSACTIONS.—The privilege of purchasing, holding, selling, exchanging, transferring, and requesting retirement of emission allowances, compensatory allowances, or off-

set credits shall not be restricted to the owners and operators of covered entities, except as otherwise provided in this title.

(c) EFFECTIVENESS OF ALLOWANCE TRANSFERS.—No transfer of an allowance or offset credit shall be effective for purposes of this title until a certification of the transfer, signed by the designated representative of the transferor, is received and recorded by the Administrator in accordance with regulations promulgated under section 721(h).

(d) ALLOWANCE TRACKING SYSTEM.—The regulations promulgated under section 721(h) shall include a system for issuing, recording, holding, and tracking allowances and offset credits that shall specify all necessary procedures and requirements for an orderly and competitive functioning of the allowance and offset credit markets. Such regulations shall provide for appropriate publication of the information in the system on the Internet.

SEC. 725. BANKING AND BORROWING.

(a) BANKING.—An emission allowance may be used to comply with section 722 or section 723 for emissions in—

(1) the vintage year for the allowance; or

(2) any calendar year subsequent to the vintage year for the allowance.

(b) EXPIRATION.—

(1) REGULATIONS.—The Administrator may establish by regulation criteria and procedures for determining whether, and for implementing a determination that, the expiration of an allowance or credit established or issued by the Administrator under this title, or expiration of the ability to use an international emission allowance to comply with section 722, is necessary to ensure the authenticity and integrity of allowances or credits or the allowance tracking system.

(2) GENERAL RULE.—An allowance or credit established or issued by the Administrator under this title shall not expire unless—

(A) it is retired by the Administrator as required under this title; or

(B) it is determined to expire or to have expired by a specific date by the Administrator in accordance with regulations promulgated under paragraph (1).

(3) INTERNATIONAL EMISSION ALLOWANCES.—The ability to use an international emission allowance to comply with section 722 shall not expire unless—

(A) the allowance is retired by the Administrator as required by this title; or

(B) the ability to use such allowance to meet such compliance obligation requirements is determined to expire or to have expired by a specific date by the Administrator in accordance with regulations promulgated under paragraph (1).

(c) BORROWING FUTURE VINTAGE YEAR ALLOWANCES.—

(1) BORROWING WITHOUT INTEREST.—In addition to the uses described in subsection (a), an emission allowance may be used to comply with section 722(a) or section 723 for emissions, production, importation, manufacture, or deliveries in the calendar year immediately preceding the vintage year for the allowance.

(2) BORROWING WITH INTEREST.—

(A) IN GENERAL.—A covered entity may demonstrate compliance under subsection (b) in a specific calendar year for up to 15 percent of its emissions by holding emission allowances with a vintage year 1 to 5 years later than that calendar year.

(B) LIMITATIONS.—An emission allowance borrowed pursuant to this paragraph shall be an emission allowance that is established by the Administrator for a specific future calendar year under section 721(a) and that is held by the borrower.

(C) PREPAYMENT OF INTEREST.—For each emission allowance that an owner or operator of a covered entity borrows pursuant to this paragraph, such owner or operator shall, at the time it borrows the allowance, hold for retirement by the Administrator a quantity of emission allowances that is equal to the product obtained by multiplying—

(i) 0.08; by

(ii) the number of years between the calendar year in which the allowance is being used to satisfy a compliance obligation and the vintage year of the allowance.

SEC. 726. STRATEGIC RESERVE.

(a) STRATEGIC RESERVE AUCTIONS.—

(1) IN GENERAL.—Once each quarter of each calendar year for which allowances are established under section 721(a), the Administrator shall auction strategic reserve allowances.

(2) RESTRICTION TO COVERED ENTITIES.—In each auction conducted under paragraph (1), only covered entities that the Administrator expects will be required to comply with section 722 in the following calendar year shall be eligible to make purchases.

(b) POOL OF EMISSION ALLOWANCES FOR STRATEGIC RESERVE AUCTIONS.—

(1) FILLING THE STRATEGIC RESERVE INITIALLY.—

(A) IN GENERAL.—The Administrator shall, not later than 2 years after the date of enactment of this title, establish a strategic reserve account, and shall place in that account an amount of emission allowances established under section 721(a) for each calendar year from 2012 through 2050 in the amounts specified in subparagraph (B) of this paragraph.

(B) AMOUNT.—The amount referred to in subparagraph (A) shall be—

(i) for each of calendar years 2012 through 2019, 1 percent of the quantity of emission allowances established for that year pursuant to section 721(e)(1);

(ii) for each of calendar years 2020 through 2029, 2 percent of the quantity of emission allowances established for that year pursuant to section 721(e)(1); and

(iii) for each of calendar years 2030 through 2050, 3 percent of the quantity of emission allowances established for that year pursuant to section 721(e)(1).

(C) EFFECT ON OTHER PROVISIONS.—Any provision in this title (except for subparagraph (B) of this paragraph) that refers to a quantity or percentage of the emission allowances established for a calendar year under section

721(a) shall be considered to refer to the amount of emission allowances as determined pursuant to section 721(e), less any emission allowances established for that year that are placed in the strategic reserve account under this paragraph.

(2) SUPPLEMENTING THE STRATEGIC RESERVE.—The Administrator shall also—

(A) at the end of each calendar year, transfer to the strategic reserve account each emission allowance that was offered for sale but not sold at any auction conducted under section 791; and

(B) transfer emission allowances established under subsection (g) from auction proceeds, and deposit them into the strategic reserve, to the extent necessary to maintain the reserve at its original size.

(c) MINIMUM STRATEGIC RESERVE AUCTION PRICE.—

(1) IN GENERAL.—At each strategic reserve auction, the Administrator shall offer emission allowances for sale beginning at a minimum price per emission allowance, which shall be known as the "minimum strategic reserve auction price".

(2) INITIAL MINIMUM STRATEGIC RESERVE AUCTION PRICES.—The minimum strategic reserve auction price shall be $28 (in constant 2009 dollars) for the strategic reserve auctions held in 2012. For the strategic reserve auctions held in 2013 and 2014, the minimum strategic reserve auction price shall be the strategic reserve auction price for the previous year increased by 5 percent plus the rate of inflation (as measured by the Consumer Price Index for All Urban Consumers).

(3) MINIMUM STRATEGIC RESERVE AUCTION PRICE IN SUBSEQUENT YEARS.—For each strategic reserve auction held in 2015 and each year thereafter, the minimum strategic reserve auction price shall be 60 percent above a rolling 36-month average of the daily closing price for that year's emission allowance vintage as reported on registered carbon trading facilities, calculated using constant dollars.

(d) QUANTITY OF EMISSION ALLOWANCES RELEASED FROM THE STRATEGIC RESERVE.—

(1) INITIAL LIMITS.—For each of calendar years 2012 through 2016, the annual limit on the number of emission allowances from the strategic reserve account that may be auctioned is an amount equal to 5 percent of the emission allowances established for that calendar year under section 721(a). This limit does not apply to international offset credits sold on consignment pursuant to subsection (h).

(2) LIMITS IN SUBSEQUENT YEARS.—For calendar year 2017 and each year thereafter, the annual limit on the number of emission allowances from the strategic reserve account that may be auctioned is an amount equal to 10 percent of the emission allowances established for that calendar year under section 721(a). This limit does not apply to international offset credits sold on consignment pursuant to subsection (h).

(3) ALLOCATION OF LIMITATION.—One-fourth of each year's annual strategic reserve auction limit under this subsection shall be made available for auction in each quarter. Any allowances from the strategic reserve account that are made avail-

able for sale in a quarterly auction and not sold shall be rolled over and added to the quantity available for sale in the following quarter, except that allowances not sold at auction in the fourth quarter of a year shall not be rolled over to the following calendar year's auctions, but shall be returned to the strategic reserve account.

(e) PURCHASE LIMIT.—

(1) IN GENERAL.—Except as provided in paragraph (2) or (3), the annual number of emission allowances that a covered entity may purchase at the strategic reserve auctions in each calendar year shall not exceed 20 percent of the covered entity's emissions during the most recent year for which allowances or credits were retired under section 722.

(2) 2012 LIMIT.—For calendar year 2012, the maximum aggregate number of emission allowances that a covered entity may purchase from that year's strategic reserve auctions shall be 20 percent of the covered entity's greenhouse gas emissions that the covered entity reported to the registry established under section 713 for 2011 and that would be subject to section 722(a) if occurring in later calendar years.

(3) NEW ENTRANTS.—The Administrator shall, by regulation, establish a separate purchase limit applicable to entities that expect to become a covered entity in the year of the auction, permitting them to purchase emission allowances at the strategic reserve auctions in their first calendar year of operation in an amount of at least 20 percent of their expected combined emissions and attributable greenhouse gas emissions for that year.

(f) DELEGATION OR CONTRACT.—Pursuant to regulations under this section, the Administrator may, by delegation or contract, provide for the conduct of strategic reserve auctions under the Administrator's supervision by other departments or agencies of the Federal Government or by nongovernmental agencies, groups, or organizations.

(g) USE OF AUCTION PROCEEDS.—

(1) DEPOSIT IN STRATEGIC RESERVE FUND.—The proceeds from strategic reserve auctions shall be placed in the Strategic Reserve Fund established under section 793(1), and shall be available without further appropriation or fiscal year limitation for the purposes described in this subsection.

(2) INTERNATIONAL OFFSET CREDITS FOR REDUCED DEFORESTATION.—The Administrator shall use the proceeds from each strategic reserve auction to purchase international offset credits issued for reduced deforestation activities pursuant to section 743(e). The Administrator shall retire those international offset credits and establish a number of emission allowances equal to 80 percent of the number of international offset credits so retired. Emission allowances established under this paragraph shall be in addition to those established under section 721(a).

(3) EMISSION ALLOWANCES.—The Administrator shall deposit emission allowances established under paragraph (2) in the strategic reserve, except that, with respect to any such emission allowances in excess of the amount necessary to fill the strategic reserve to its original size, the Administrator shall—

(A) except as provided in subparagraph (B), assign a vintage year to the emission allowance, which shall be no ear-

lier than the year in which the allowance is established under paragraph (2) and shall treat such allowances as ones that are not designated for distribution or auction for purposes of section 782(q) and (r); and

(B) to the extent any such allowances cannot be assigned a vintage year because of the limitation in paragraph (4), retire the allowances.

(4) LIMITATION.—In no case may the Administrator assign under paragraph (3)(A) more emission allowances to a vintage year than the number of emission allowances from that vintage year that were placed in the strategic reserve account under subsection (b)(1).

(h) AVAILABILITY OF INTERNATIONAL OFFSET CREDITS FOR AUCTION.—

(1) IN GENERAL.—The regulations promulgated under section 721(h) shall allow any entity holding international offset credits from reduced deforestation issued under section 743(e) to request that the Administrator include such offset credits in an upcoming strategic reserve auction. The regulations shall provide that—

(A) such international offset credits will be used to fill bid orders only after the supply of strategic reserve allowances available for sale at that auction has been depleted;

(B) international offset credits may be sold at a strategic reserve auction under this subsection only if the Administrator determines that it is highly likely that covered entities will, to cover emissions occurring in the year the auction is held, use offset credits to demonstrate compliance under section 722 for emissions equal to or greater than 80 percent of 2 billion tons of carbon dioxide equivalent;

(C) upon sale of such international offset credits, the Administrator shall retire those international offset credits, and establish and provide to the purchasers a number of emission allowances equal to 80 percent of the number of international offset credits so retired, which allowances shall be in addition to those established under section 721(a); and

(D) for international offset credits sold pursuant to this subsection, the proceeds for the entity that offered the international offset credits for sale shall be the lesser of—

(i) the average daily closing price for international offset credits sold on registered exchanges (or if such price is unavailable, the average price as determined by the Administrator) during the six months prior to the strategic reserve auction at which they were auctioned, with the remaining funds collected upon the sale of the international offset credits deposited in the Treasury; and

(ii) the amount received for the international offset credits at the auction.

(2) PROCEEDS.—For international offset credits sold pursuant to this subsection, notwithstanding section 3302 of title 31, United States Code, or any other provision of law, within 90 days of receipt, the United States shall transfer the proceeds from the auction, as defined in paragraph (1)(D), to the entity

that offered the international offset credits for sale. No funds transferred from a purchaser to a seller of international offset credits under this paragraph shall be held by any officer or employee of the United States or treated for any purpose as public monies.

(3) PRICING.—When the Administrator acts under this subsection as the agent of an entity in possession of international offset credits, the Administrator is not obligated to obtain the highest price possible for the international offset credits, and instead shall auction such international offset credits in the same manner and pursuant to the same rules (except as modified in paragraph (1)) as set forth for auctioning strategic reserve allowances. Entities requesting that such international offset credits be offered for sale at a strategic reserve auction may not set a minimum reserve price for their international offset credits that is different than the minimum strategic reserve auction price set pursuant to subsection (c).

(i) INITIAL REGULATIONS.—Not later than 24 months after the date of enactment of this title, the Administrator shall promulgate regulations, in consultation with other appropriate agencies, governing the auction of allowances under this section. Such regulations shall include the following requirements:

(1) FREQUENCY; FIRST AUCTION.—Auctions shall be held four times per year at regular intervals, with the first auction to be held no later than March 31, 2012.

(2) AUCTION FORMAT.—Auctions shall follow a single-round, sealed-bid, uniform price format.

(3) PARTICIPATION; FINANCIAL ASSURANCE.—Auctions shall be open to any covered entity eligible to purchase emission allowances at the auction under subsection (a)(2), except that the Administrator may establish financial assurance requirements to ensure that auction participants can and will perform on their bids.

(4) DISCLOSURE OF BENEFICIAL OWNERSHIP.—Each bidder in an auction shall be required to disclose the person or entity sponsoring or benefitting from the bidder's participation in the auction if such person or entity is, in whole or in part, other than the bidder.

(5) PURCHASE LIMITS.—No person may, directly or in concert with another participant, purchase more than 20 percent of the allowances offered for sale at any quarterly auction.

(6) PUBLICATION OF INFORMATION.—After the auction, the Administrator shall, in a timely fashion, publish the identities of winning bidders, the quantity of allowances obtained by each winning bidder, and the auction clearing price.

(7) OTHER REQUIREMENTS.—The Administrator may include in the regulations such other requirements or provisions as the Administrator, in consultation with other agencies as appropriate, considers appropriate to promote effective, efficient, transparent, and fair administration of auctions under this section.

(j) REVISION OF REGULATIONS.—The Administrator may, at any time, in consultation with other agencies as appropriate, revise the initial regulations promulgated under subsection (i). Such revised regulations need not meet the requirements identified in subsection

(i) if the Administrator determines that an alternative auction design would be more effective, taking into account factors including costs of administration, transparency, fairness, and risks of collusion or manipulation. In determining whether and how to revise the initial regulations under this subsection, the Administrator shall not consider maximization of revenues to the Federal Government.

SEC. 727. PERMITS.

(a) PERMIT PROGRAM.—For stationary sources subject to title V of this Act, that are covered entities, the provisions of this title shall be implemented by permits issued to such covered entities (and enforced) in accordance with the provisions of title V, as modified by this title. Any such permit issued by the Administrator, or by a State with an approved permit program, shall require the owner or operator of a covered entity to hold emission allowances or offset credits at least equal to the total annual amount of carbon dioxide equivalents for its combined emissions and attributable greenhouse gas emissions to which section 722 applies. No such permit shall be issued that is inconsistent with the requirements of this title, and title V as applicable. Nothing in this section regarding compliance plans or in title V shall be construed as affecting allowances or offset credits. Submission of a statement by the owner or operator, or the designated representative of the owners and operators, of a covered entity that the owners and operators will hold emission allowances or offset credits for the entity's combined emissions and attributable greenhouse gas emissions to which section 722 applies shall be deemed to meet the proposed and approved planning requirements of title V. Recordation by the Administrator of transfers of emission allowances shall amend automatically all applicable proposed or approved permit applications, compliance plans, and permits.

(b) MULTIPLE OWNERS.—No permit shall be issued under this section and no allowances or offset credits shall be disbursed under this title to a covered entity or any other person until the designated representative of the owners or operators has filed a certificate of representation with regard to matters under this title, including the holding and distribution of emission allowances and the proceeds of transactions involving emission allowances. Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, such a covered entity or other entity or where a utility or industrial customer purchases power under a long-term power purchase contract from an independent power production facility that is a covered entity, the certificate shall state—

(1) that emission allowances and the proceeds of transactions involving emission allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement; or

(2) if such multiple holders have expressly provided for a different distribution of emission allowances by contract, that emission allowances and the proceeds of transactions involving emission allowances will be deemed to be held or distributed in accordance with the contract.

A passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the covered entity or other entity shall not be deemed to be a holder of a legal, equitable,

leasehold, or contractual interest for the purpose of holding or distributing emission allowances as provided in this subsection, during either the term of such leasehold or thereafter, unless expressly provided for in the leasehold agreement. Except as otherwise provided in this subsection, where all legal or equitable title to or interest in a covered entity, or other entity, is held by a single person, the certificate shall state that all emission allowances received by the entity are deemed to be held for that person.

(c) PROHIBITION.—It shall be unlawful for any person to operate any stationary source subject to the requirements of this section except in compliance with the terms and requirements of a permit issued by the Administrator or a State with an approved permit program in accordance with this section. For purposes of this subsection, compliance, as provided in section 504(f), with a permit issued under title V which complies with this title for covered entities shall be deemed compliance with this subsection as well as section 502(a).

(d) RELIABILITY.—Nothing in this section or title V shall be construed as requiring termination of operations of a stationary source that is a covered entity for failure to have an approved permit, or compliance plan, that is consistent with the requirements in the second and fifth sentences of subsection (a) concerning the holding of emission allowances, compensatory allowances, international emission allowances, or offset allowances, except that any such covered entity may be subject to the applicable enforcement provision of section 113.

(e) REGULATIONS.—The Administrator shall promulgate regulations to implement this section. To provide for permits required under this section, each State in which one or more stationary sources and that are covered entities are located shall submit, in accordance with this section and title V, revised permit programs for approval.

SEC. 728. INTERNATIONAL EMISSION ALLOWANCES.

(a) QUALIFYING PROGRAMS.—The Administrator, in consultation with the Secretary of State, may by rule designate an international climate change program as a qualifying international program if—

(1) the program is run by a national or supranational foreign government, and imposes a mandatory absolute tonnage limit on greenhouse gas emissions from 1 or more foreign countries, or from 1 or more economic sectors in such a country or countries; and

(2) the program is at least as stringent as the program established by this title, including provisions to ensure at least comparable monitoring, compliance, enforcement, quality of offsets, and restrictions on the use of offsets.

(b) DISQUALIFIED ALLOWANCES.—An international emission allowance may not be held under section 722(d)(2) if it is in the nature of an offset instrument or allowance awarded based on the achievement of greenhouse gas emission reductions or avoidance, or greenhouse gas sequestration, that are not subject to the mandatory absolute tonnage limits referred to in subsection (a)(1).

(c) RETIREMENT.—

(1) ENTITY CERTIFICATION.—The owner or operator of an entity that holds an international emission allowance under section 722(d)(2) shall certify to the Administrator that such inter-

national emission allowance has not previously been used to comply with any foreign, international, or domestic greenhouse gas regulatory program.

(2) RETIREMENT.—

(A) FOREIGN AND INTERNATIONAL REGULATORY ENTITIES.—The Administrator, in consultation with the Secretary of State, shall seek, by whatever means appropriate, including agreements and technical cooperation on allowance tracking, to ensure that any relevant foreign, international, and domestic regulatory entities—

(i) are notified of the use, for purposes of compliance with this title, of any international emission allowance; and

(ii) provide for the disqualification of such international emission allowance for any subsequent use under the relevant foreign, international, or domestic greenhouse gas regulatory program, regardless of whether such use is a sale, exchange, or submission to satisfy a compliance obligation.

(B) DISQUALIFICATION FROM FURTHER USE.—The Administrator shall ensure that, once an international emission allowance has been disqualified or otherwise used for purposes of compliance with this title, such allowance shall be disqualified from any further use under this title.

(d) USE LIMITATIONS.—The Administrator may, by rule, modify the percentage applicable to international emission allowances under section 722(d)(2), consistent with the purposes of the Safe Climate Act.

PART D—OFFSETS

SEC. 731. OFFSETS INTEGRITY ADVISORY BOARD.

(a) ESTABLISHMENT.—Not later than 30 days after the date of enactment of this title, the Administrator shall establish an independent Offsets Integrity Advisory Board. The Advisory Board shall make recommendations to the Administrator for use in promulgating and revising regulations under this part and part E, and for ensuring the overall environmental integrity of the programs established pursuant to those regulations.

(b) MEMBERSHIP.—The Advisory Board shall be comprised of at least nine members. Each member shall be qualified by education, training, and experience to evaluate scientific and technical information on matters referred to the Board under this section. The Administrator shall appoint Advisory Board members, including a chair and vice-chair of the Advisory Board. Terms shall be 3 years in length, except for initial terms, which may be up to 5 years in length to allow staggering. Members may be reappointed only once for an additional 3-year term, and such second term may follow directly after a first term.

(c) ACTIVITIES.—The Advisory Board established pursuant to subsection (a) shall—

(1) provide recommendations, not later than 90 days after the Advisory Board's establishment and periodically thereafter, to the Administrator regarding offset project types that should be

considered for eligibility under section 733, taking into consideration relevant scientific and other issues, including—

(A) the availability of a representative data set for use in developing the activity baseline;

(B) the potential for accurate quantification of greenhouse gas reduction, avoidance, or sequestration for an offset project type;

(C) the potential level of scientific and measurement uncertainty associated with an offset project type; and

(D) any beneficial or adverse environmental, public health, welfare, social, economic, or energy effects associated with an offset project type;

(2) make available to the Administrator its advice and comments on offset methodologies that should be considered under regulations promulgated pursuant to section 734(a) and (b), including methodologies to address the issues of additionality, activity baselines, measurement, leakage, uncertainty, permanence, and environmental integrity;

(3) make available to the Administrator, and other relevant Federal agencies, its advice and comments regarding scientific, technical, and methodological issues specific to the issuance of international offset credits under section 743;

(4) make available to the Administrator, and other relevant Federal agencies, its advice and comments regarding scientific, technical, and methodological issues associated with the implementation of part E;

(5) make available to the Administrator its advice and comments on areas in which further knowledge is required to appraise the adequacy of existing, revised, or proposed methodologies for use under this part and part E, and describe the research efforts necessary to provide the required information; and

(6) make available to the Administrator its advice and comments on other ways to improve or safeguard the environmental integrity of programs established under this part and part E.

(d) SCIENTIFIC REVIEW OF OFFSET AND DEFORESTATION REDUCTION PROGRAMS.—Not later than January 1, 2017, and at five-year intervals thereafter, the Advisory Board shall submit to the Administrator and make available to the public an analysis of relevant scientific and technical information related to this part and part E. The Advisory Board shall review approved and potential methodologies, scientific studies, offset project monitoring, offset project verification reports, and audits related to this part and part E, and evaluate the net emissions effects of implemented offset projects. The Advisory Board shall recommend changes to offset methodologies, protocols, or project types, or to the overall offset program under this part, to ensure that offset credits issued by the Administrator do not compromise the integrity of the annual emission reductions established under section 703, and to avoid or minimize adverse effects to human health or the environment.

SEC. 732. ESTABLISHMENT OF OFFSETS PROGRAM.

(a) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with appropriate Federal agencies and taking into consideration the recommendations of the Advisory Board, shall promulgate regulations

establishing a program for the issuance of offset credits in accordance with the requirements of this part. The Administrator shall periodically revise these regulations as necessary to meet the requirements of this part.

(b) REQUIREMENTS.—The regulations described in subsection (a) shall—

(1) authorize the issuance of offset credits with respect to qualifying offset projects that result in reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases;

(2) ensure that such offset credits represent verifiable and additional greenhouse gas emission reductions or avoidance, or increases in sequestration;

(3) ensure that offset credits issued for sequestration offset projects are only issued for greenhouse gas reductions that are permanent;

(4) provide for the implementation of the requirements of this part; and

(5) include as reductions in greenhouse gases reductions achieved through the destruction of methane and its conversion to carbon dioxide.

(c) COORDINATION TO MINIMIZE NEGATIVE EFFECTS.—In promulgating and implementing regulations under this part, the Administrator shall act (including by rejecting projects, if necessary) to avoid or minimize, to the maximum extent practicable, adverse effects on human health or the environment resulting from the implementation of offset projects under this part.

(d) OFFSET REGISTRY.—The Administrator shall establish within the allowance tracking system established under section 724(d) an Offset Registry for qualifying offset projects and offset credits issued with respect thereto under this part.

(e) LEGAL STATUS OF OFFSET CREDIT.—An offset credit does not constitute a property right.

(f) FEES.—The Administrator shall assess fees payable by offset project developers in an amount necessary to cover the administrative costs to the Environmental Protection Agency of carrying out the activities under this part. Amounts collected for such fees shall be available to the Administrator for carrying out the activities under this part to the extent provided in advance in appropriations Acts.

SEC. 733. ELIGIBLE PROJECT TYPES.

(a) LIST OF ELIGIBLE PROJECT TYPES.—

(1) IN GENERAL.—As part of the regulations promulgated under section 732(a), the Administrator shall establish, and may periodically revise, a list of types of projects eligible to generate offset credits, including international offset credits, under this part.

(2) ADVISORY BOARD RECOMMENDATIONS.—In determining the eligibility of project types, the Administrator shall take into consideration the recommendations of the Advisory Board. If a list established under this section differs from the recommendations of the Advisory Board, the regulations promulgated under section 732(a) shall include a justification for the discrepancy.

(3) INITIAL DETERMINATION.—The Administrator shall establish the initial eligibility list under paragraph (1) not later than

one year after the date of enactment of this title. The Administrator shall add additional project types to the list not later than 2 years after the date of enactment of this title. In determining the initial list, the Administrator shall give priority to consideration of offset project types that are recommended by the Advisory Board and for which there are well developed methodologies that the Administrator determines would meet the criteria of section 734, with such modifications as the Administrator deems appropriate. In issuing methodologies pursuant to section 734, the Administrator shall give priority to methodologies for offset types included on the initial eligibility list.

(b) MODIFICATION OF LIST.—The Administrator—

(1) may at any time, by rule, add a project type to the list established under subsection (a) if the Administrator, in consultation with appropriate Federal agencies and taking into consideration the recommendations of the Advisory Board, determines that the project type can generate additional reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases, subject to the requirements of this part;

(2) may at any time, by rule, determine that a project type on the list does not meet the requirements of this part, and remove a project type from the list established under subsection (a), in consultation with appropriate Federal agencies and taking into consideration any recommendations of the Advisory Board; and

(3) shall consider adding to or removing from the list established under subsection (a), at a minimum, project types proposed to the Administrator—

(A) by petition pursuant to subsection (c); or

(B) by the Advisory Board.

(c) PETITION PROCESS.—Any person may petition the Administrator to modify the list established under subsection (a) by adding or removing a project type pursuant to subsection (b). Any such petition shall include a showing by the petitioner that there is adequate data to establish that the project type does or does not meet the requirements of this part. Not later than 12 months after receipt of such a petition, the Administrator shall either grant or deny the petition and publish a written explanation of the reasons for the Administrator's decision. The Administrator may not deny a petition under this subsection on the basis of inadequate Environmental Protection Agency resources or time for review.

SEC. 734. REQUIREMENTS FOR OFFSET PROJECTS.

(a) METHODOLOGIES.—As part of the regulations promulgated under section 732(a), the Administrator shall establish, for each type of offset project listed as eligible under section 733, the following:

(1) ADDITIONALITY.—A standardized methodology for determining the additionality of greenhouse gas emission reductions or avoidance, or greenhouse gas sequestration, achieved by an offset project of that type. Such methodology shall ensure, at a minimum, that any greenhouse gas emission reduction or avoidance, or any greenhouse gas sequestration, is considered additional only to the extent that it results from activities that—

(A) are not required by or undertaken to comply with any law, including any regulation or consent order;

(B) were not commenced prior to January 1, 2009, except in the case of—

(i) offset project activities that commenced after January 1, 2001, and were registered as of the date of enactment of this title under an offset program with respect to which the Administrator has made an affirmative determination under section 740(a)(2); or

(ii) activities that are readily reversible, with respect to which the Administrator may set an alternative earlier date under this subparagraph that is not earlier than January 1, 2001, where the Administrator determines that setting such an alternative date may produce an environmental benefit by removing an incentive to cease and then reinitiate activities that began prior to January 1, 2009;

(C) are not receiving support under part E of this title or title IV, subtitle D of the American Clean Energy and Security Act of 2009; and

(D) exceed the activity baseline established under paragraph (2).

(2) ACTIVITY BASELINES.—A standardized methodology for establishing activity baselines for offset projects of that type. The Administrator shall set activity baselines to reflect a conservative estimate of business-as-usual performance or practices for the relevant type of activity such that the baseline provides an adequate margin of safety to ensure the environmental integrity of offsets calculated in reference to such baseline.

(3) QUANTIFICATION METHODS.—A standardized methodology for determining the extent to which greenhouse gas emission reductions or avoidance, or greenhouse gas sequestration, achieved by an offset project of that type exceed a relevant activity baseline, including protocols for monitoring and accounting for uncertainty.

(4) LEAKAGE.—A standardized methodology for accounting for and mitigating potential leakage, if any, from an offset project of that type, taking uncertainty into account.

(b) ACCOUNTING FOR REVERSALS.—

(1) IN GENERAL.—For each type of sequestration project listed under section 733, the Administrator shall establish requirements to account for and address reversals, including—

(A) a requirement to report any reversal with respect to an offset project for which offset credits have been issued under this part;

(B) provisions to require emission allowances to be held in amounts to fully compensate for greenhouse gas emissions attributable to reversals, and to assign responsibility for holding such emission allowances; and

(C) any other provisions the Administrator determines necessary to account for and address reversals.

(2) MECHANISMS.—The Administrator shall prescribe mechanisms to ensure that any sequestration with respect to which an offset credit is issued under this part results in a permanent net increase in sequestration, and that full account is taken of any

actual or potential reversal of such sequestration, with an adequate margin of safety. The Administrator shall prescribe at least one of the following mechanisms to meet the requirements of this paragraph:

(A) An offsets reserve, pursuant to paragraph (3).

(B) Insurance that provides for purchase and provision to the Administrator for retirement of an amount of offset credits or emission allowances equal in number to the tons of carbon dioxide equivalents of greenhouse gas emissions released due to reversal.

(C) Another mechanism that the Administrator determines satisfies the requirements of this part.

(3) OFFSETS RESERVE.—

(A) IN GENERAL.—An offsets reserve referred to in paragraph (2)(A) is a program under which, before issuance of offset credits under this part, the Administrator shall subtract and reserve from the quantity to be issued a quantity of offset credits based on the risk of reversal. The Administrator shall—

(i) hold these reserved offset credits in the offsets reserve; and

(ii) register the holding of the reserved offset credits in the Offset Registry established under section 732(d).

(B) PROJECT REVERSAL.—

(i) IN GENERAL.—If a reversal has occurred with respect an offset project for which offset credits are reserved under this paragraph, the Administrator shall remove offset credits from the offsets reserve and cancel them to fully account for the tons of carbon dioxide equivalent that are no longer sequestered.

(ii) INTENTIONAL REVERSALS.—If the Administrator determines that a reversal was intentional, the offset project developer for the relevant offset project shall place into the offsets reserve a quantity of offset credits, or combination of offset credits and emission allowances, equal in number to the number of reserve offset credits that were canceled due to the reversal pursuant to clause (i).

(iii) UNINTENTIONAL REVERSALS.—If the Administrator determines that a reversal was unintentional, the offset project developer for the relevant offset project shall place into the offsets reserve a quantity of offset credits, or combination of offset credits and emission allowances, equal in number to half the number of offset credits that were reserved for that offset project, or half the number of reserve offset credits that were canceled due to the reversal pursuant to clause (i), whichever is less.

(C) USE OF RESERVED OFFSET CREDITS.—Offset credits placed into the offsets reserve under this paragraph may not be used to comply with section 722.

(c) CREDITING PERIODS.—

(1) IN GENERAL.—For each offset project type, the Administrator shall specify a crediting period, and establish provisions

for petitions for new crediting periods, in accordance with this subsection.

(2) DURATION.—The crediting period shall be no less than 5 and no greater than 10 years for any project type other than those involving sequestration.

(3) ELIGIBILITY.—An offset project shall be eligible to generate offset credits under this part only during the project's crediting period. During such crediting period, the project shall remain eligible to generate offset credits, subject to the methodologies and project type eligibility list that applied as of the date of project approval under section 735, except as provided in paragraph (4) of this subsection.

(4) PETITION FOR NEW CREDITING PERIOD.—An offset project developer may petition for a new crediting period to commence after termination of a crediting period, subject to the methodologies and project type eligibility list in effect at the time when such petition is submitted. A petition may not be submitted under this paragraph more than 18 months before the end of the pending crediting period. The Administrator may limit the number of new crediting periods available for projects of particular project types.

(d) ENVIRONMENTAL INTEGRITY.—In establishing the requirements under this section, the Administrator shall apply conservative assumptions or methods to maximize the certainty that the environmental integrity of the cap established under section 703 is not compromised.

(e) PRE-EXISTING METHODOLOGIES.—In promulgating requirements under this section, the Administrator shall give due consideration to methodologies for offset projects existing as of the date of enactment of this title.

(f) ADDED PROJECT TYPES.—The Administrator shall establish methodologies described in subsection (a), and, as applicable, requirements and mechanisms for reversals as described in subsection (b), for any project type that is added to the list pursuant to section 733.

SEC. 735. APPROVAL OF OFFSET PROJECTS.

(a) APPROVAL PETITION.—An offset project developer shall submit an offset project approval petition providing such information as the Administrator requires to determine whether the offset project is eligible for issuance of offset credits under rules promulgated pursuant to this part.

(b) TIMING.—An approval petition shall be submitted to the Administrator under subsection (a) no later than the time at which an offset project's first verification report is submitted under section 736.

(c) APPROVAL PETITION REQUIREMENTS.—As part of the regulations promulgated under section 732, the Administrator shall include provisions for, and shall specify, the required components of an offset project approval petition required under subsection (a), which shall include—

(1) designation of an offset project developer; and

(2) any other information that the Administrator considers to be necessary to achieve the purposes of this part.

(d) APPROVAL AND NOTIFICATION.—Not later than 90 days after receiving a complete approval petition under subsection (a), the Ad-

ministrator shall approve or deny the petition in writing and, if the petition is denied, provide the reasons for denial. After an offset project is approved, the offset project developer shall not be required to resubmit an approval petition during the offset project's crediting period, except as provided in section 734(c)(4).

(e) APPEAL.—The Administrator shall establish procedures for appeal and review of determinations made under subsection (d).

(f) VOLUNTARY PREAPPROVAL REVIEW.—The Administrator may establish a voluntary preapproval review procedure, to allow an offset project developer to request the Administrator to conduct a preliminary eligibility review for an offset project. Findings of such reviews shall not be binding upon the Administrator. The voluntary preapproval review procedure—

(1) shall require the offset project developer to submit such basic project information as the Administrator requires to provide a meaningful review; and

(2) shall require a response from the Administrator not later than 6 weeks after receiving a request for review under this subsection.

SEC. 736. VERIFICATION OF OFFSET PROJECTS.

(a) IN GENERAL.—As part of the regulations promulgated under section 732(a), the Administrator shall establish requirements, including protocols, for verification of the quantity of greenhouse gas emission reductions or avoidance, or sequestration of greenhouse gases, resulting from an offset project. The regulations shall require that an offset project developer shall submit a report, prepared by a third-party verifier accredited under subsection (d), providing such information as the Administrator requires to determine the quantity of greenhouse gas emission reductions or avoidance, or sequestration of greenhouse gas, resulting from the offset project.

(b) SCHEDULE.—The Administrator shall prescribe a schedule for the submission of verification reports under subsection (a).

(c) VERIFICATION REPORT REQUIREMENTS.—The Administrator shall specify the required components of a verification report required under subsection (a), which shall include—

(1) the name and contact information for a designated representative for the offset project developer;

(2) the quantity of greenhouse gas reduced, avoided, or sequestered;

(3) the methodologies applicable to the project pursuant to section 734;

(4) a certification that the project meets the applicable requirements;

(5) a certification establishing that the conflict of interest requirements in the regulations promulgated under subsection (d)(1) have been complied with; and

(6) any other information that the Administrator considers to be necessary to achieve the purposes of this part.

(d) VERIFIER ACCREDITATION.—

(1) IN GENERAL.—As part of the regulations promulgated under section 732(a), the Administrator shall establish a process and requirements for periodic accreditation of third-party verifiers to ensure that such verifiers are professionally qualified and have no conflicts of interest.

(2) STANDARDS.—

(A) AMERICAN NATIONAL STANDARDS INSTITUTE ACCREDITATION.—The Administrator may accredit, or accept for purposes of accreditation under this subsection, verifiers accredited under the American National Standards Institute (ANSI) accreditation program in accordance with ISO 14065. The Administrator shall accredit, or accept for accreditation, verifiers under this subparagraph only if the Administrator finds that the American National Standards Institute accreditation program provides sufficient assurance that the requirements of this part will be met.

(B) EPA ACCREDITATION.—As part of the regulations promulgated under section 732(a), the Administrator may establish accreditation standards for verifiers under this subsection, and may establish related training and testing programs and requirements.

(3) PUBLIC ACCESSIBILITY.—Each verifier meeting the requirements for accreditation in accordance with this subsection shall be listed in a publicly accessible database, which shall be maintained and updated by the Administrator.

SEC. 737. ISSUANCE OF OFFSET CREDITS.

(a) DETERMINATION AND NOTIFICATION.—Not later than 90 days after receiving a complete verification report under section 736, the Administrator shall—

(1) make the report publicly available;

(2) make a determination of the quantity of greenhouse gas emissions reduced or avoided, or greenhouse gases sequestered, resulting from an offset project approved under section 735; and

(3) notify the offset project developer in writing of such determination.

(b) ISSUANCE OF OFFSET CREDITS.—The Administrator shall issue one offset credit to an offset project developer for each ton of carbon dioxide equivalent that the Administrator has determined has been reduced, avoided, or sequestered during the period covered by a verification report submitted in accordance with section 736, only if—

(1) the Administrator has approved the offset project pursuant to section 735; and

(2) the relevant emissions reduction, avoidance, or sequestration has—

(A) already occurred, during the offset project's crediting period; and

(B) occurred after January 1, 2009.

(c) APPEAL.—The Administrator shall establish procedures for appeal and review of determinations made under subsection (a).

(d) TIMING.—Offset credits meeting the criteria established in subsection (b) shall be issued not later than 2 weeks following the verification determination made by the Administrator under subsection (a).

(e) REGISTRATION.—The Administrator shall assign a unique serial number to and register each offset credit to be issued in the Offset Registry established under section 732(d).

SEC. 738. AUDITS.

(a) IN GENERAL.—The Administrator shall, on an ongoing basis, conduct random audits of offset projects, offset credits, and practices

of third-party verifiers. In each year, the Administrator shall conduct audits, at minimum, for a representative sample of project types and geographic areas.

(b) DELEGATION.—The Administrator may delegate to a State or tribal government the responsibility for conducting audits under this section if the Administrator finds that the program proposed by the State or tribal government provides assurances equivalent to those provided by the auditing program of the Administrator, and that the integrity of the offset program under this part will be maintained. Nothing in this subsection shall prevent the Administrator from conducting any audit the Administrator considers necessary and appropriate.

SEC. 739. PROGRAM REVIEW AND REVISION.

At least once every 5 years, the Administrator shall review and, based on new or updated information and taking into consideration the recommendations of the Advisory Board, update and revise—

(1) the list of eligible project types established under section 733;

(2) the methodologies established, including specific activity baselines, under section 734(a);

(3) the reversal requirements and mechanisms established or prescribed under section 734(b);

(4) measures to improve the accountability of the offsets program; and

(5) any other requirements established under this part to ensure the environmental integrity and effective operation of this part.

SEC. 740. EARLY OFFSET SUPPLY.

(a) PROJECTS REGISTERED UNDER OTHER GOVERNMENT-RECOGNIZED PROGRAMS.—Except as provided in subsection (b) or (c), the Administrator shall issue one offset credit for each ton of carbon dioxide equivalent emissions reduced, avoided, or sequestered—

(1) under an offset project that was started after January 1, 2001;

(2) for which a credit was issued under any regulatory or voluntary greenhouse gas emission offset program that the Administrator determines—

(A) was established under State or tribal law or regulation prior to January 1, 2009, or has been approved by the Administrator pursuant to subsection (e);

(B) has developed offset project type standards, methodologies, and protocols through a public consultation process or a peer review process;

(C) has made available to the public standards, methodologies, and protocols that require that credited emission reductions, avoidance, or sequestration are permanent, additional, verifiable, and enforceable;

(D) requires that all emission reductions, avoidance, or sequestration be verified by a State regulatory agency or an accredited third-party independent verification body;

(E) requires that all credits issued are registered in a publicly accessible registry, with individual serial numbers assigned for each ton of carbon dioxide equivalent emission reductions, avoidance, or sequestration; and

(F) ensures that no credits are issued for activities for which the entity administering the program, or a program administrator or representative, has funded, solicited, or served as a fund administrator for the development of, the project or activity that caused the emission reduction, avoidance, or sequestration; and

(3) for which the credit described in paragraph (2) is transferred to the Administrator.

(b) INELIGIBLE CREDITS.—Subsection (a) shall not apply to offset credits that have expired or have been retired, canceled, or used for compliance under a program established under State or tribal law or regulation.

(c) LIMITATION.—Notwithstanding subsection (a)(1), offset credits shall be issued under this section—

(1) only for reductions or avoidance of greenhouse gas emissions, or sequestration of greenhouse gases, that occur after January 1, 2009; and

(2) only until the date that is 3 years after the date of enactment of this title, or the date that regulations promulgated under section 732(a) take effect, whichever occurs sooner.

(d) RETIREMENT OF CREDITS.—The Administrator shall seek to ensure that offset credits described in subsection (a)(2) are retired for purposes of use under a program described in subsection (b).

(e) OTHER PROGRAMS.—(1) Offset programs that either—

(A) were not established under State or tribal law; or

(B) were not established prior to January 1, 2009,

but that otherwise meet all of the criteria of subsection (a)(2) may apply to the Administrator to be approved under this subsection as an eligible program for early offset credits under this section.

(2) The Administrator shall approve any such program that the Administrator determines has criteria and methodologies of at least equal stringency to the criteria and methodologies of the programs established under State or tribal law that the Administrator determines meet the criteria of subsection (a)(2). The Administrator may approve types of offsets under any such program that are subject to criteria and methodologies of at least equal stringency to the criteria and methodologies for such types of offsets applied under the programs established under State or tribal law that the Administrator determines meet the criteria of subsection (a)(2). The Administrator shall make a determination on any application received under this subsection by no later than 180 days from the date of receipt of the application.

SEC. 741. ENVIRONMENTAL CONSIDERATIONS.

If the Administrator lists forestry projects as eligible offset project types under section 733, the Administrator, in consultation with appropriate Federal agencies, shall promulgate regulations for the selection and use of species in forestry and other relevant land management-related offset projects—

(1) to ensure that native species are given primary consideration in such projects;

(2) to enhance biological diversity in such projects;

(3) to prohibit the use of federally designated or State-designated noxious weeds;

(4) to prohibit the use of a species listed by a regional or State invasive plant authority within the applicable region or State; and

(5) in accordance with widely accepted, environmentally sustainable forestry practices.

SEC. 742. TRADING.

Section 724 shall apply to the trading of offset credits.

SEC. 743. INTERNATIONAL OFFSET CREDITS.

(a) IN GENERAL.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, may issue, in accordance with this section, international offset credits based on activities that reduce or avoid greenhouse gas emissions, or increase sequestration of greenhouse gases, in a developing country. Such credits may be issued for projects pursuant to the requirements of this part or as provided in subsection (c), (d), or (e).

(b) ISSUANCE.—

(1) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with the Secretary of State, the Administrator of the United States Agency for International Development, and any other appropriate Federal agency, and taking into consideration the recommendations of the Advisory Board, shall promulgate regulations for implementing this section. Except as otherwise provided in this section, the issuance of international offset credits under this section shall be subject to the requirements of this part.

(2) REQUIREMENTS FOR INTERNATIONAL OFFSET CREDITS.—The Administrator may issue international offset credits only if—

(A) the United States is a party to a bilateral or multilateral agreement or arrangement that includes the country in which the project or measure achieving the relevant greenhouse gas emission reduction or avoidance, or greenhouse gas sequestration, has occurred;

(B) such country is a developing country; and

(C) such agreement or arrangement—

(i) ensures that all of the requirements of this part apply to the issuance of international offset credits under this section; and

(ii) provides for the appropriate distribution of international offset credits issued.

(c) SECTOR-BASED CREDITS.—

(1) IN GENERAL.—In order to minimize the potential for leakage and to encourage countries to take nationally appropriate mitigation actions to reduce or avoid greenhouse gas emissions, or sequester greenhouse gases, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall—

(A) identify sectors of specific countries with respect to which the issuance of international offset credits on a sectoral basis is appropriate; and

(B) issue international offset credits for such sectors only on a sectoral basis.

(2) IDENTIFICATION OF SECTORS.—

(A) GENERAL RULE.—For purposes of paragraph (1)(A), a sectoral basis shall be appropriate for activities—

(i) in countries that have comparatively high greenhouse gas emissions, or comparatively greater levels of economic development; and

(ii) that, if located in the United States, would be within a sector subject to the compliance obligation under section 722.

(B) FACTORS.—In determining the sectors and countries for which international offset credits should be awarded only on a sectoral basis, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall consider the following factors:

(i) The country's gross domestic product.

(ii) The country's total greenhouse gas emissions.

(iii) Whether the comparable sector of the United States economy is covered by the compliance obligation under section 722.

(iv) The heterogeneity or homogeneity of sources within the relevant sector.

(v) Whether the relevant sector provides products or services that are sold in internationally competitive markets.

(vi) The risk of leakage if international offset credits were issued on a project-level basis, instead of on a sectoral basis, for activities within the relevant sector.

(vii) The capability of accurately measuring, monitoring, reporting, and verifying the performance of sources across the relevant sector.

(viii) Such other factors as the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, determines are appropriate to—

(I) ensure the integrity of the United States greenhouse gas emissions cap established under section 703; and

(II) encourage countries to take nationally appropriate mitigation actions to reduce or avoid greenhouse gas emissions, or sequester greenhouse gases.

(3) SECTORAL BASIS.—

(A) DEFINITION.—In this subsection, the term "sectoral basis" means the issuance of international offset credits only for the quantity of sector-wide reductions or avoidance of greenhouse gas emissions, or sector-wide increases in sequestration of greenhouse gases, achieved across the relevant sector of the economy relative to a baseline level of performance established in an agreement or arrangement described in subsection (b)(2)(A) for the sector.

(B) BASELINE.—The baseline for a sector shall be established at levels of greenhouse gas emissions lower than would occur under a business-as-usual scenario taking into account relevant domestic or international policies or incentives to reduce greenhouse gas emissions, among other fac-

tors, and additionality and performance shall be determined on the basis of such baseline.

(d) CREDITS ISSUED BY AN INTERNATIONAL BODY.—

(1) IN GENERAL.—The Administrator, in consultation with the Secretary of State, may issue international offset credits in exchange for instruments in the nature of offset credits that are issued by an international body established pursuant to the United Nations Framework Convention on Climate Change, to a protocol to such Convention, or to a treaty that succeeds such Convention. The Administrator may issue international offset credits under this subsection only if, in addition to the requirements of subsection (b), the Administrator has determined that the international body that issued the instruments has implemented substantive and procedural requirements for the relevant project type that provide equal or greater assurance of the integrity of such instruments as is provided by the requirements of this part.

(2) RETIREMENT.—The Administrator, in consultation with the Secretary of State, shall seek, by whatever means appropriate, including agreements, arrangements, or technical cooperation with the international issuing body described in paragraph (1), to ensure that such body—

(A) is notified of the Administrator's issuance, under this subsection, of an international offset credit in exchange for an instrument issued by such international body; and

(B) provides, to the extent feasible, for the disqualification of the instrument issued by such international body for subsequent use under any relevant foreign or international greenhouse gas regulatory program, regardless of whether such use is a sale, exchange, or submission to satisfy a compliance obligation.

(e) OFFSETS FROM REDUCED DEFORESTATION.—

(1) REQUIREMENTS.—The Administrator, in accordance with the regulations promulgated under subsection (b)(1) and an agreement or arrangement described in subsection (b)(2)(A), shall issue international offset credits for greenhouse gas emission reductions achieved through activities to reduce deforestation only if, in addition to the requirements of subsection (b)—

(A) the activity occurs in—

(i) a country listed by the Administrator pursuant to paragraph (2);

(ii) a state or province listed by the Administrator pursuant to paragraph (5); or

(iii) a country listed by the Administrator pursuant to paragraph (6);

(B) except as provided in paragraph (5) or (6), the quantity of the international offset credits is determined by comparing the national emissions from deforestation relative to a national deforestation baseline for that country established, in accordance with an agreement or arrangement described in subsection (b)(2)(A), pursuant to paragraph (4);

(C) the reduction in emissions from deforestation has occurred before the issuance of the international offset credit and, taking into consideration relevant international stand-

ards, has been demonstrated using ground-based inventories, remote sensing technology, and other methodologies to ensure that all relevant carbon stocks are accounted;

(D) the Administrator has made appropriate adjustments, such as discounting for any additional uncertainty, to account for circumstances specific to the country, including its technical capacity described in paragraph (2)(A);

(E) the activity is designed, carried out, and managed—

(i) in accordance with widely accepted, environmentally sustainable forest management practices;

(ii) to promote or restore native forest species and ecosystems where practicable, and to avoid the introduction of invasive nonnative species;

(iii) in a manner that gives due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

(iv) with consultations with, and full participation of, local communities, indigenous peoples, and forest-dependent communities, in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, and monitoring and evaluation of activities; and

(v) with equitable sharing of profits and benefits derived from offset credits with local communities, indigenous peoples, and forest-dependent communities; and

(F) the reduction otherwise satisfies and is consistent with any relevant requirements established by an agreement reached under the auspices of the United Nations Framework Convention on Climate Change.

(2) ELIGIBLE COUNTRIES.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, and in accordance with an agreement or arrangement described in subsection (b)(2)(A), shall establish, and periodically review and update, a list of the developing countries that have the capacity to participate in deforestation reduction activities at a national level, including—

(A) the technical capacity to monitor, measure, report, and verify forest carbon fluxes for all significant sources of greenhouse gas emissions from deforestation with an acceptable level of uncertainty, as determined taking into account relevant internationally accepted methodologies, such as those established by the Intergovernmental Panel on Climate Change;

(B) the institutional capacity to reduce emissions from deforestation, including strong forest governance and mechanisms to equitably distribute deforestation resources for local actions; and

(C) a land use or forest sector strategic plan that—

(i) assesses national and local drivers of deforestation and forest degradation and identifies reforms to national policies needed to address them;

(ii) estimates the country's emissions from deforestation and forest degradation;

(iii) identifies improvements in data collection, monitoring, and institutional capacity necessary to implement a national deforestation reduction program; and

(iv) establishes a timeline for implementing the program and transitioning to low-emissions development.

(3) PROTECTION OF INTERESTS.—With respect to an agreement or arrangement described in subsection (b)(2)(A) with a country that addresses international offset credits under this subsection, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall seek to ensure the establishment and enforcement by such country of legal regimes, processes, standards, and safeguards that—

(A) give due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

(B) promote consultations with, and full participation of, forest-dependent communities and indigenous peoples in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, and monitoring and evaluation of activities; and

(C) encourage equitable sharing of profits and benefits derived from international offset credits with local communities, indigenous peoples, and forest-dependent communities.

(4) NATIONAL DEFORESTATION BASELINE.—A national deforestation baseline established under this subsection shall—

(A) be national in scope;

(B) be consistent with nationally appropriate mitigation commitments or actions with respect to deforestation, taking into consideration the average annual historical deforestation rates of the country during a period of at least 5 years, the applicable drivers of deforestation, and other factors to ensure additionality;

(C) establish a trajectory that would result in zero net deforestation by not later than 20 years after the national deforestation baseline has been established;

(D) be adjusted over time to take account of changing national circumstances;

(E) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the country; and

(F) be consistent with the national deforestation baseline, if any, established for such country under section 754(d)(1).

(5) STATE-LEVEL OR PROVINCE-LEVEL ACTIVITIES.—

(A) ELIGIBLE STATES OR PROVINCES.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall establish, and periodically review and update, a list of states or provinces in developing countries where—

(i) the developing country is not included on the list of countries established pursuant to paragraph (6)(A);

(ii) the state or province by itself is a major emitter of greenhouse gases from tropical deforestation on a

scale commensurate to the emissions of other countries; and

(iii) the state or province meets the eligibility criteria in paragraphs (2) and (3) for the geographic area under its jurisdiction.

(B) ACTIVITIES.—The Administrator may issue international offset credits for greenhouse gas emission reductions achieved through activities to reduce deforestation at a state or provincial level that meet the requirements of this section. Such credits shall be determined by comparing the emissions from deforestation within that state or province relative to the state or province deforestation baseline for that state or province established, in accordance with an agreement or arrangement described in subsection (b)(2)(A), pursuant to subparagraph (C) of this paragraph.

(C) STATE-LEVEL OR PROVINCE-LEVEL DEFORESTATION BASELINE.—A state-level or province-level deforestation baseline shall—

(i) be consistent with any existing nationally appropriate mitigation commitments or actions for the country in which the activity is occurring, taking into consideration the average annual historical deforestation rates of the state or province during a period of at least 5 years, relevant drivers of deforestation, and other factors to ensure additionality;

(ii) establish a trajectory that would result in zero net deforestation by not later than 20 years after the state-level or province-level deforestation baseline has been established; and

(iii) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the state or province and adjusted to fully account for emissions leakage outside the state or province.

(D) PHASE OUT.—Beginning 5 years after the first calendar year for which a covered entity must demonstrate compliance with section 722(a), the Administrator shall issue no further international offset credits for eligible state-level or province-level activities to reduce deforestation pursuant to this paragraph.

(6) PROJECTS AND PROGRAMS TO REDUCE DEFORESTATION.—

(A) ELIGIBLE COUNTRIES.—The Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall establish, and periodically review and update, a list of developing countries that—

(i) the Administrator determines, based on recent, credible, and reliable emissions data, account for less than 1 percent of global greenhouse gas emissions and less than 3 percent of global forest-sector and land use change greenhouse gas emissions; and

(ii) have, or in the determination of the Administrator are making a good faith effort to develop, a land use or forest sector strategic plan that meets the criteria described in paragraph (2)(C).

(B) ACTIVITIES.—The Administrator may issue international offset credits for greenhouse gas emission reductions achieved through project or program level activities to reduce deforestation in countries listed under subparagraph (A) that meet the requirements of this section. The quantity of international offset credits shall be determined by comparing the project-level or program-level emissions from deforestation to a deforestation baseline for such project or program established pursuant to subparagraph (C).

(C) PROJECT-LEVEL OR PROGRAM-LEVEL BASELINE.—A project-level or program-level deforestation baseline shall—

(i) be consistent with any existing nationally appropriate mitigation commitments or actions for the country in which the project or program is occurring, taking into consideration the average annual historical deforestation rates in the project or program boundary during a period of at least 5 years, applicable drivers of deforestation, and other factors to ensure additionality;

(ii) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the project or program boundary; and

(iii) be adjusted to fully account for emissions leakage outside the project or program boundary.

(D) PHASE OUT.—(i) Beginning 5 years after the first calendar year for which a covered entity must demonstrate compliance with section 722(a), the Administrator shall issue no further international offset credits for project-level or program-level activities as described in this paragraph, except as provided in clause (ii).

(ii) The Administrator may extend the phase out deadline for the issuance of international offset credits under this section by up to 8 years with respect to eligible activities taking place in a least developed nation, which is a foreign country that the United Nations has identified as among the least developed of developing countries at the time that the Administrator determines to provide an extension, provided that the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, determines the nation—

(I) lacks sufficient capacity to adopt and implement effective programs to achieve reductions in deforestation measured against national baselines;

(II) is receiving support under part E to develop such capacity; and

(III) has developed and is working to implement a credible national strategy or plan to reduce deforestation.

(7) DEFORESTATION.—In implementing this subsection, the Administrator, taking into consideration the recommendations of the Advisory Board, may include forest degradation, or soil carbon losses associated with forested wetlands or peatlands, within the meaning of deforestation.

(f) MODIFICATION OF REQUIREMENTS.—In promulgating regulations under subsection (b)(1) with respect to the issuance of inter-

national offset credits under subsection (c), (d), or (e), the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, may modify or omit a requirement of this part (excluding the requirements of this section) if the Administrator determines that the application of that requirement to such subsection is not feasible. In modifying or omitting such a requirement on the basis of infeasibility, the Administrator, in consultation with the Secretary of State and the Administrator of the United States Agency for International Development, shall ensure, with an adequate margin of safety, the integrity of international offset credits issued under this section and of the greenhouse gas emissions cap established pursuant to section 703.

(g) AVOIDING DOUBLE COUNTING.—The Administrator, in consultation with the Secretary of State, shall seek, by whatever means appropriate, including agreements, arrangements, or technical cooperation, to ensure that activities on the basis of which international offset credits are issued under this section are not used for compliance with an obligation to reduce or avoid greenhouse gas emissions, or increase greenhouse gas sequestration, under a foreign or international regulatory system. In addition, no international offset credits shall be issued for emission reductions from activities with respect to which emission allowances were allocated under section 781 for distribution under part E.

(h) LIMITATION.—The Administrator shall not issue international offset credits generated by projects based on the destruction of hydrofluorocarbons.

PART E—SUPPLEMENTAL EMISSIONS REDUCTIONS FROM REDUCED DEFORESTATION

SEC. 751. DEFINITIONS.

In this part:

(1) LEAKAGE PREVENTION ACTIVITIES.—The term "leakage prevention activities" means activities in developing countries that are directed at preserving existing forest carbon stocks, including forested wetlands and peatlands, that might, absent such activities, be lost through leakage.

(2) NATIONAL DEFORESTATION REDUCTION ACTIVITIES.—The term "national deforestation reduction activities" means activities in developing countries that reduce a quantity of greenhouse gas emissions from deforestation that is calculated by measuring actual emissions against a national deforestation baseline established pursuant to section 754(d)(1) and (2).

(3) SUBNATIONAL DEFORESTATION REDUCTION ACTIVITIES.—The term "subnational deforestation reduction activities" means activities in developing countries that reduce a quantity of greenhouse gas emissions from deforestation that are calculated by measuring actual emissions using an appropriate baseline established by the Administrator that is less than national in scope.

(4) SUPPLEMENTAL EMISSIONS REDUCTIONS.—The term "supplemental emissions reductions" means greenhouse gas emissions reductions achieved from reduced or avoided deforestation under this part.

(5) USAID.—The term "USAID" means the United States Agency for International Development.

SEC. 752. FINDINGS.

Congress finds that—

(1) as part of a global effort to mitigate climate change, it is in the national interest of the United States to assist developing countries to reduce and ultimately halt emissions from deforestation;

(2) deforestation is one of the largest sources of greenhouse gas emissions in developing countries, amounting to roughly 20 percent of overall emissions globally;

(3) recent scientific analysis shows that it will be substantially more difficult to limit the increase in global temperatures to less than 2 degrees centigrade above preindustrial levels without reducing and ultimately halting net emissions from deforestation;

(4) reducing emissions from deforestation is highly cost-effective, compared to many other sources of emissions reductions;

(5) in addition to contributing significantly to worldwide efforts to address global warming, this assistance will generate significant environmental and social cobenefits, including protection of biodiversity, ecosystem services, and forest-related livelihoods; and

(6) Under the Bali Action Plan, developed country parties to the United Nations Framework Convention on Climate Change, including the United States, committed to "enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation," including, inter alia, consideration of "improved access to adequate, predictable, and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country parties".

SEC. 753. SUPPLEMENTAL EMISSIONS REDUCTIONS THROUGH REDUCED DEFORESTATION.

(a) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with the Administrator of USAID and any other appropriate agencies, shall promulgate regulations establishing a program to use emission allowances set aside for this purpose under section 781 to achieve the reduction of greenhouse gas emissions from deforestation in developing countries in accordance with the requirements of this part.

(b) OBJECTIVES.—The objectives of the program established under this section shall be to—

(1) achieve supplemental emissions reductions of at least 720,000,000 tons of carbon dioxide equivalent in 2020, a cumulative amount of at least 6,000,000,000 tons of carbon dioxide equivalent by December 31, 2025, and additional supplemental emissions reductions in subsequent years;

(2) build capacity to reduce deforestation in developing countries experiencing deforestation, including preparing developing countries to participate in international markets for international offset credits for reduced emissions from deforestation; and

(3) preserve existing forest carbon stocks in countries where such forest carbon may be vulnerable to international leakage, particularly in developing countries with largely intact native forests.

SEC. 754. REQUIREMENTS FOR INTERNATIONAL DEFORESTATION REDUCTION PROGRAM.

(a) ELIGIBLE COUNTRIES.—The Administrator may support activities under this part only with respect to a developing country that—

(1) the Administrator, in consultation with the Administrator of USAID, determines is experiencing deforestation or forest degradation or has standing forest carbon stocks that may be at risk of deforestation or degradation; and

(2) has entered into a bilateral or multilateral agreement or arrangement with the United States establishing the conditions of its participation in the program established under this part, which shall include an agreement to meet the standards established under subsection (d) for the activities to which those standards apply.

(b) ACTIVITIES.—(1) Subject to the requirements of this part, the Administrator, in consultation with the Administrator of USAID, may support activities to achieve the objectives identified in section 753(b), including—

(A) national deforestation reduction activities;

(B) subnational deforestation reduction activities, including pilot activities that reduce greenhouse gas emissions but are subject to significant uncertainty;

(C) activities to measure, monitor, and verify deforestation, avoided deforestation, and deforestation rates;

(D) leakage prevention activities;

(E) development of measurement, monitoring, and verification capacities to enable a country to quantify supplemental emissions reductions and to generate for sale offset credits from reduced or avoided deforestation;

(F) development of governance structures to reduce deforestation and illegal logging;

(G) enforcement of requirements for reduced deforestation or forest conservation;

(H) efforts to combat illegal logging and increase enforcement cooperation;

(I) providing incentives for policy reforms to achieve the objectives identified in section 753(b); and

(J) monitoring and evaluation of the results of the activities conducted under this section.

(2) ACTIVITIES SELECTED BY USAID.—

(A) The Administrator of USAID, in consultation with the Administrator, may select for support and implementation pursuant to subsection (c) any of the activities described in paragraph (1), consistent with this part and the regulations promulgated under subsection (d), and subject to the requirement to achieve the objectives listed in section 753(b)(1).

(B) With respect to the activities listed in subparagraphs (D) through (J) of paragraph (1), the Administrator of USAID, in consultation with the Administrator, shall have primary but not exclusive responsibility for selecting the activities to be supported and implemented.

(3) INTERAGENCY COORDINATION.—The Administrator and the Administrator of USAID shall jointly develop and biennially update a strategic plan for meeting the objectives listed in section 753(b) and shall execute a memorandum of understanding delineating the agencies' respective roles in implementing this part.

(c) MECHANISMS.—

(1) IN GENERAL.—The Administrator may support activities to achieve the objectives identified in section 753(b) by—

(A) developing and implementing programs and projects that achieve such objectives; and

(B) distributing emission allowances to a country that is eligible under subsection (a), to any private or public group (including international organizations), or to an international fund established by an international agreement to which the United States is a party, to carry out activities to achieve such objectives.

(2) USAID ACTIVITIES.—With respect to activities selected and implemented by the Administrator of USAID pursuant to (b)(2), the Administrator shall distribute emission allowances as provided in subparagraph (1) based upon the direction of the Administrator of USAID, subject to the availability of allowances for such activities.

(3) IMPLEMENTATION THROUGH INTERNATIONAL ORGANIZATIONS.—If support is distributed through an international organization, the agency responsible for selecting activities in accordance with subparagraph (b)(1) or (2), in consultation with the Secretary of State, shall ensure the establishment and implementation of adequate mechanisms to apply and enforce the eligibility requirements and other requirements of this section.

(4) ROLE OF THE SECRETARY OF STATE.—The Administrator may not distribute emission allowances to the government of another country or to an international organization or international fund unless the Secretary of State has concurred with such distribution.

(d) STANDARDS.—The Administrator, in consultation with the Administrator of USAID, shall promulgate standards to ensure that supplemental emissions reductions achieved through supported activities are additional, measurable, verifiable, permanent, monitored, and account for leakage and uncertainty. In addition, such standards shall—

(1) require the establishment of a national deforestation baseline for each country with national deforestation reduction activities that is used to account for reductions achieved from such activities;

(2) provide that a national deforestation baseline established under paragraph (1) shall—

(A) be national in scope;

(B) be consistent with nationally appropriate mitigation commitments or actions with respect to deforestation, taking into consideration the average annual historical deforestation rates of the country during a period of at least 5 years and other factors to ensure additionality;

(C) establish a trajectory that would result in zero net deforestation by not later than 20 years from the date the baseline is established;

(D) be adjusted over time to take account of changing national circumstances;

(E) be designed to account for all significant sources of greenhouse gas emissions from deforestation in the country; and

(F) be consistent with the national deforestation baseline, if any, established for such country under section 743(e)(4);

(3) with respect to support provided pursuant to subsection (b)(1)(A) or (B), require supplemental emissions reductions to be achieved and verified prior to compensation through the distribution of emission allowances under this part;

(4) with respect to accounting for subnational deforestation reduction activities that lack the standardized or precise measurement and monitoring techniques needed for a full accounting of changes in emissions or baselines, or are subject to other sources of uncertainty, apply a conservative discount factor to reflect the uncertainty regarding the levels of reductions achieved;

(5) ensure that activities under this part shall be designed, carried out, and managed—

(A) in accordance with widely accepted, environmentally sustainable forestry practices;

(B) to promote native species and conservation or restoration of native forests, if practicable, and to avoid the introduction of invasive nonnative species;

(C) in a manner that gives due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

(D) with consultations with, and full participation of, local communities, indigenous peoples, and forest-dependent communities in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, and monitoring and evaluation of activities; and

(E) with equitable sharing of profits and benefits derived from the activities with local communities, indigenous peoples, and forest-dependent communities; and

(6) with respect to support for all activities under this part, seek to ensure the establishment and enforcement by the recipient country of legal regimes, standards, processes, and safeguards that—

(A) give due regard to the rights and interests of local communities, indigenous peoples, forest-dependent communities, and vulnerable social groups;

(B) promote consultations with local communities and indigenous peoples and forest-dependent communities in affected areas, as partners and primary stakeholders, prior to and during the design, planning, implementation, monitoring, and evaluation of activities under this part; and

(C) encourage equitable sharing of profits and benefits from incentives for emissions reductions or leakage prevention with local communities, indigenous peoples, and forest-dependent communities.

(e) EXPANSION OF SCOPE.—The Administrator, in consultation with the Administrator of USAID, may decide, taking into account

any advice from the Advisory Board, to expand, where appropriate, the scope of activities under this part to include—

(1) reduced emissions from forest degradation; or

(2) reduced soil carbon-derived emissions associated with deforestation and degradation of forested wetlands and peatlands.

(f) ACCOUNTING.—The Administrator shall establish a publicly accessible registry of the supplemental emissions reductions achieved through support provided under this part each year, after appropriately discounting for uncertainty and other relevant factors as required by the standards established under subsection (d).

(g) TRANSITION TO NATIONAL REDUCTIONS.—Beginning 5 years after the date that a country entered into the agreement or arrangement required under subsection (a)(2), the Administrator shall provide no further compensation through emission allowances to that country under this part for any subnational deforestation reduction activities, except that the Administrator may extend this period by an additional 5 years if the Administrator, in consultation with the Administrator of USAID, determines that—

(1) the country is making substantial progress towards adopting and implementing a program to achieve reductions in deforestation measured against a national baseline;

(2) the greenhouse gas emissions reductions achieved are not resulting in significant leakage; and

(3) the greenhouse gas emissions reductions achieved are being appropriately discounted to account for any leakage that is occurring.

The limitation under this subsection shall not apply to support for activities to further the objectives listed in section 753(b)(2) or (3).

(h) COORDINATION WITH U.S. FOREIGN ASSISTANCE.—Subject to the direction of the President, the Administrator and the Administrator of USAID shall, to the extent practicable and consistent with the objectives of this program, seek to align activities under this section with broader development, poverty alleviation, or natural resource management objectives and initiatives in the recipient country.

(i) SUPPORT AS SUPPLEMENT.—The provision of support for activities under this part shall be used to supplement, and not to supplant, any other Federal, State, or local support available to carry out such qualifying activities under this part.

SEC. 755. REPORTS AND REVIEWS.

(a) REPORTS.—Not later than January 1, 2014, and annually thereafter, the Administrator and the Administrator of USAID shall submit to the Committee on Energy and Commerce and the Committee on Foreign Affairs of the House of Representatives, and the Committee on Environment and Public Works and the Committee on Foreign Relations of the Senate, and make available to the public, a report on the support provided under this part during the prior fiscal year. The report shall include—

(1) a statement of the quantity of supplemental emissions reductions for which compensation in the form of emission allowances was provided under this part during the prior fiscal year, as registered by the Administrator under section 754(f); and

(2) a description of the national and subnational deforestation reduction activities, capacity-building activities, and leakage prevention activities supported under this part, including a

statement of the quantity of emission allowances distributed to each recipient for each activity during the prior fiscal year, and a description of what was accomplished through each of the activities.

(b) REVIEWS.—Not later than 4 years after the date of enactment of this title and every 5 years thereafter, the Administrator and the Administrator of USAID and taking into consideration any evaluation by or recommendations from the Advisory Board established under section 731, shall conduct a review of the activities undertaken pursuant to this part and make any appropriate changes in the program established under this part based on the findings of the review. The review shall include the effects of the activities on—

(1) total documented carbon stocks of each country that directly or indirectly received support under this part compared with such country's national deforestation baseline established under section 754(d)(1);

(2) the number of countries with the capacity to generate for sale instruments in the nature of offset credits from forest-related activities, and the amount of such activities;

(3) forest governance in each country that directly or indirectly received support under this part;

(4) indigenous peoples and forest-dependent communities residing in areas affected by such activities;

(5) biodiversity and ecosystem services within forested areas associated with the activities;

(6) international leakage; and

(7) any program or mechanism established under the United Nations Framework Convention on Climate Change related to greenhouse gas emissions from deforestation.

SEC. 756. LEGAL EFFECT OF PART.

(1) IN GENERAL.—Nothing in this part supersedes, limits, or otherwise affects any restriction imposed by Federal law (including regulations) on any interaction between an entity located in the United States and an entity located in a foreign country.

(2) ROLE OF THE SECRETARY OF STATE.—Nothing in this part shall be construed as affecting the role of the Secretary of State or the responsibilities of the Secretary under section 622 (c) of the Foreign Assistance Act of 1961.

PART F—ENSURING REAL REDUCTIONS IN INDUSTRIAL EMISSIONS

SEC. 761. PURPOSES.

(a) PURPOSE OF PART.—The purposes of this part are—

(1) to promote a strong global effort to significantly reduce greenhouse gas emissions, and, through this global effort, stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous anthropogenic interference with the climate system; and

(2) to prevent an increase in greenhouse gas emissions in countries other than the United States as a result of direct and indirect compliance costs incurred under this title.

(b) PURPOSES OF SUBPART 1.—The purposes of subpart 1 are additionally—

(1) to rebate the owners and operators of entities in domestic eligible industrial sectors for their greenhouse gas emission costs incurred under this title, but not for costs associated with other related or unrelated market dynamics;

(2) to design such rebates in a way that will prevent carbon leakage while also rewarding innovation and facility-level investments in energy efficiency performance improvements; and

(3) to eliminate or reduce distribution of emission allowances under this part when such distribution is no longer necessary to prevent carbon leakage from eligible industrial sectors.

SEC. 762. INTERNATIONAL NEGOTIATIONS.

(a) FINDING.—Congress finds that the purposes of this part, as set forth in section 761, can be most effectively addressed and achieved through agreements negotiated between the United States and foreign countries.

(b) STATEMENT OF POLICY.—It is the policy of the United States to work proactively under the United Nations Framework Convention on Climate Change, and in other appropriate forums, to establish binding agreements, including sectoral agreements, committing all major greenhouse gas-emitting nations to contribute equitably to the reduction of global greenhouse gas emissions.

(c) NOTIFICATION OF FOREIGN COUNTRIES.—Not later than January 1, 2020, the President shall notify foreign countries that an International Reserve Allowance Program, as described in subpart 2, may apply to primary products produced in a foreign country by a sector for which the President has made a determination described in section 767(c).

SEC. 763. DEFINITIONS.

In this part:

(1) CARBON LEAKAGE.—The term "carbon leakage" means any substantial increase (as determined by the Administrator) in greenhouse gas emissions by industrial entities located in other countries if such increase is caused by an incremental cost of production increase in the United States resulting from the implementation of this title.

(2) ELIGIBLE INDUSTRIAL SECTOR.—The term "eligible industrial sector" means an industrial sector determined by the Administrator under section 764(b) to be eligible to receive emission allowance rebates under subpart 1.

(3) INDUSTRIAL SECTOR.—The term "industrial sector" means any sector that is in the manufacturing sector (as defined in NAICS codes 31, 32, and 33).

(4) NAICS.—The term "NAICS" means the North American Industrial Classification System of 2002.

(5) OUTPUT.—The term "output" means the total tonnage or other standard unit of production (as determined by the Administrator) produced by an entity in an industrial sector. The output of the cement sector is hydraulic cement, and not clinker.

(6) PRIMARY PRODUCT.—The term "primary product" means a product manufactured by an eligible industrial sector that is—

(A) iron, steel, steel mill products (including pipe and tube), aluminum, cement, glass (including flat, container,

and specialty glass and fiberglass), pulp, paper, chemicals, or industrial ceramics; or

(B) any other manufactured product that is sold in bulk for purposes of further manufacture or inclusion in a finished product.

Subpart 1—Emission Allowance Rebate Program

SEC. 764. ELIGIBLE INDUSTRIAL SECTORS.

(a) LIST.—

(1) INITIAL LIST.—Not later than June 30, 2011, the Administrator shall publish in the Federal Register a list of eligible industrial sectors pursuant to subsection (b). Such list shall include the amount of the emission allowance rebate per unit of production that shall be provided to entities in each eligible industrial sector in the following two calendar years pursuant to section 765.

(2) SUBSEQUENT LISTS.—Not later than February 1, 2013, and every four years thereafter, the Administrator shall publish in the Federal Register an updated version of the list published under paragraph (1).

(b) ELIGIBLE INDUSTRIAL SECTORS.—

(1) IN GENERAL.—Not later than June 30, 2011, the Administrator shall promulgate a rule designating, based on the criteria under paragraph (2), the industrial sectors eligible for emission allowance rebates under this subpart.

(2) PRESUMPTIVELY ELIGIBLE INDUSTRIAL SECTORS.—

(A) ELIGIBILITY CRITERIA.—An owner or operator of an entity shall be eligible to receive emission allowance rebates under this subpart if such entity is in an industrial sector that is included in a six-digit classification of the NAICS that meets the criteria in both clauses (i) and (ii), or the criteria in clause (iii).

(i) ENERGY OR GREENHOUSE GAS INTENSITY.—As determined by the Administrator, the industrial sector had—

(I) an energy intensity of at least 5 percent, calculated by dividing the cost of purchased electricity and fuel costs of the sector by the value of the shipments of the sector, based on data described in subparagraph (E); or

(II) a greenhouse gas intensity of at least 5 percent, calculated by dividing—

(aa) the number 20 multiplied by the number of tons of carbon dioxide equivalent greenhouse gas emissions (including direct emissions from fuel combustion, process emissions, and indirect emissions from the generation of electricity used to produce the output of the sector) of the sector based on data described in subparagraph (E); by

(bb) the value of the shipments of the sector, based on data described in subparagraph (E).

(ii) TRADE INTENSITY.—As determined by the Administrator, the industrial sector had a trade intensity of

at least 15 percent, calculated by dividing the value of the total imports and exports of such sector by the value of the shipments plus the value of imports of such sector, based on data described in subparagraph (E).

(iii) VERY HIGH ENERGY OR GREENHOUSE GAS INTENSITY.—As determined by the Administrator, the industrial sector had an energy or greenhouse gas intensity, as calculated under clause (i)(I) or (II), of at least 20 percent.

(B) IRON AND STEEL SECTOR.—For purposes of this subpart, in carrying out this section and section 765, the Administrator shall consider as in different industrial sectors—

(i) entities using integrated iron and steelmaking technologies (including coke ovens, blast furnaces, and other iron-making technologies); and

(ii) entities using electric arc furnace technologies.

(C) METAL AND PHOSPHATE PRODUCTION CLASSIFIED UNDER MORE THAN ONE NAICS CODE.—For purposes of this subpart, in carrying out this section and section 765, the Administrator shall—

(i) aggregate data for the beneficiation or other processing of iron and copper ores and phosphate with subsequent steps in the process of metal and phosphate manufacturing regardless of the NAICS code under which such activity is classified; and

(ii) aggregate data for the manufacturing of steel with the manufacturing of steel pipe and tube made from purchased steel in a nonintegrated process.

(D) EXCLUSION.—The petroleum refining sector shall not be an eligible industrial sector.

(E) DATA SOURCES.—

(i) ELECTRICITY AND FUEL COSTS, VALUE OF SHIPMENTS.—The Administrator shall determine electricity and fuel costs and the value of shipments under this subsection from data from the United States Census of Mineral Industries and the United States Census Annual Survey of Manufacturers. The Administrator shall take the average of data from as many of the years of 2004, 2005, and 2006 for which such data are available. If such data are unavailable, the Administrator shall make a determination based upon 2002 or 2006 data from the most detailed industrial classification level of Energy Information Agency's Manufacturing Energy Consumption Survey (using 2006 data if it is available) and the 2002 or 2007 Economic Census of the United States (using 2007 data if it is available). If data from the Manufacturing Energy Consumption Survey are unavailable for any sector at the six-digit classification level in the NAICS, then the Administrator may extrapolate the information necessary to determine the eligibility of a sector under this paragraph from available Manufacturing Energy Consumption Survey data pertaining to a broader industrial cat-

egory classified in the NAICS. Fuel cost data shall not include the cost of fuel used as feedstock by an industrial sector.

(ii) IMPORTS AND EXPORTS.—The Administrator shall base the value of imports and exports under this subsection on United States International Trade Commission data. The Administrator shall take the average of data from as many of the years of 2004, 2005, and 2006 for which such data are available.

(iii) PERCENTAGES.—The Administrator shall round the energy intensity, greenhouse gas intensity, and trade intensity percentages under subparagraph (A) to the nearest whole number.

(iv) GREENHOUSE GAS EMISSION CALCULATIONS.—When calculating the tons of carbon dioxide equivalent greenhouse gas emissions for each sector under subparagraph (A)(i)(II)(aa), the Administrator—

(I) shall use the best available data from as many of the years 2004, 2005, and 2006 for which such data is available; and

(II) may, to the extent necessary with respect to a sector, use economic and engineering models and the best available information on technology performance levels for such sector.

(3) ADMINISTRATIVE DETERMINATION OF ADDITIONAL ELIGIBLE INDUSTRIAL SECTORS.—

(A) INDIVIDUAL SHOWING PETITION.—

(i) PETITION.—The owner or operator of an entity in an industrial sector may petition the Administrator to designate as eligible industrial sectors under this subpart an entity or a group of entities that—

(I) represent a subsector of a six-digit section of the NAICS code; and

(II) meet the eligibility criteria in both clauses (i) and (ii) of paragraph (2)(A), or the eligibility criteria in clause (iii) of paragraph (2)(A).

(ii) DATA.—In making a determination under this subparagraph, the Administrator shall consider data submitted by the petitioner that is specific to the entity, data solicited by the Administrator from other entities in the subsector, if such other entities exist, and data specified in paragraph (2)(E).

(iii) BASIS OF SUBSECTOR DETERMINATION.—The Administrator shall determine an entity or group of entities to be a subsector of a six-digit section of the NAICS code based only upon the products manufactured and not the industrial process by which the products are manufactured, except that the Administrator may determine an entity or group of entities that manufacture a product from a virgin material to be a separate subsector from another entity or group of entities that manufacture the same product from recycled material.

(iv) FINAL ACTION.—The Administrator shall take final action on such petition no later than 6 months after the petition is received by the Administrator.

(B) UPDATED TRADE INTENSITY DATA.—The Administrator shall designate as eligible to receive emission allowance rebates under this subpart an industrial sector that—

(i) met the energy or greenhouse gas intensity criteria in paragraph (2)(A)(i) as of the date of promulgation of the rule under paragraph (1); and

(ii) meets the trade intensity criteria in paragraph (2)(A)(ii), using data from any year after 2006.

(C) USE OF MOST RECENT DATA.—In determining whether to designate a sector or subsector as an eligible industrial sector under this paragraph, the Administrator shall use the most recent data available from the sources described in paragraph (2)(E), rather than the data from the years specified in paragraph (2)(E), to determine the trade intensity of such sector or subsector, but only for determining such trade intensity.

SEC. 765. DISTRIBUTION OF EMISSION ALLOWANCE REBATES.

(a) DISTRIBUTION SCHEDULE.—

(1) IN GENERAL.—For each vintage year, the Administrator shall distribute allowances pursuant to this section no later than October 31 of the preceding calendar year. The Administrator shall make such annual distributions to the owners and operators of each entity in an eligible industrial sector in the amount of emission allowances calculated under subsection (b), except that—

(A) for vintage years 2012 and 2013, the distribution for a covered entity shall be the entity's indirect carbon factor as calculated under subsection (b)(3); and

(B) for vintage year 2026 and thereafter, the distribution shall be the amount calculated under subsection (b) multiplied by, except as modified by the President pursuant to section 767(c)(3)(A) for a sector—

(i) 90 percent for vintage year 2026;
(ii) 80 percent for vintage year 2027;
(iii) 70 percent for vintage year 2028;
(iv) 60 percent for vintage year 2029;
(v) 50 percent for vintage year 2030;
(vi) 40 percent for vintage year 2031;
(vii) 30 percent for vintage year 2032;
(viii) 20 percent for vintage year 2033;
(ix) 10 percent for vintage year 2034; and
(x) 0 percent for vintage year 2035 and thereafter.

(2) RESUMPTION OF REDUCTION.—If the President has modified the percentage stated in paragraph (1)(B) under section 767(c)(3)(A), and the President subsequently makes a determination under section 767(b) for an eligible industrial sector that more than 70 percent of global output for that sector is produced or manufactured in countries that have met at least one of the criteria in that subsection, then the reduction schedule set forth in paragraph (1)(B) of this subsection shall begin in the next vintage year, with the percentage reduction based on the amount of the distribution of emission allowances under this section in the previous year.

(3) NEWLY ELIGIBLE SECTORS.—In addition to receiving a distribution of emission allowances under this section in the first

distribution occurring after an industrial sector is designated as eligible under section 764(b)(3), the owner or operator of an entity in that eligible industrial sector may receive a prorated share of any emission allowances made available for distribution under this section that were not distributed for the year in which the petition for eligibility was granted under section 764(b)(3)(A).

(b) CALCULATION OF DIRECT AND INDIRECT CARBON FACTORS.—

(1) IN GENERAL.—

(A) COVERED ENTITIES.—Except as provided in subsection (a), for covered entities that are in eligible industrial sectors, the amount of emission allowance rebates shall be based on the sum of the covered entity's direct and indirect carbon factors.

(B) OTHER ELIGIBLE ENTITIES.—For entities that are in eligible industrial sectors but are not covered entities, the amount of emission allowance rebates shall be based on the entity's indirect carbon factor.

(C) NEW ENTITIES.—Not later than 2 years after the date of enactment of this title, the Administrator shall issue regulations governing the distribution of emission allowance rebates for the first and second years of operation of a new entity in an eligible industrial sector. These regulations shall provide for—

(i) the distribution of emission allowance rebates to such entities based on comparable entities in the same sector; and

(ii) an adjustment in the third and fourth years of operation to reconcile the total amount of emission allowance rebates received during the first and second years of operation to the amount the entity would have received during the first and second years of operation had the appropriate data been available.

(2) DIRECT CARBON FACTOR.—The direct carbon factor for a covered entity for a vintage year is the product of—

(A) the average output of the covered entity for the two years preceding the year of the distribution; and

(B) the most recent calculation of the average direct greenhouse gas emissions (expressed in tons of carbon dioxide equivalent) per unit of output for all covered entities in the sector, as determined by the Administrator under paragraph (4).

(3) INDIRECT CARBON FACTOR.—

(A) IN GENERAL.—The indirect carbon factor for an entity for a vintage year is the product obtained by multiplying the average output of the entity for the two years preceding the years of the distribution by both the electricity emissions intensity factor determined pursuant to subparagraph (B) and the electricity efficiency factor determined pursuant to subparagraph (C) for the year concerned.

(B) ELECTRICITY EMISSIONS INTENSITY FACTOR.—Each person selling electricity to the owner or operator of an entity in any sector designated as an eligible industrial sector under section 764(b) shall provide the owner or operator of the entity and the Administrator, on an annual basis, the

electricity emissions intensity factor for the entity. The electricity emissions intensity factor for the entity, expressed in tons of carbon dioxide equivalents per kilowatt hour, is determined by dividing—

(i) the annual sum of the hourly product of—

(I) the electricity purchased by the entity from that person in each hour (expressed in kilowatt hours), multiplied by

(II) the marginal or weighted average tons of carbon dioxide equivalent per kilowatt hour that the person selling the electricity charges to the entity, taking into account the entity's retail rate arrangements, by

(ii) the total kilowatt hours of electricity purchased by the entity from that person during that year.

(C) ELECTRICITY EFFICIENCY FACTOR.—The electricity efficiency factor is the average amount of electricity (in kilowatt hours) used per unit of output for all entities in the relevant sector, as determined by the Administrator based on the best available data, including data provided under paragraph (6).

(D) INDIRECT CARBON FACTOR REDUCTION.—If an electricity provider received a free allocation of emission allowances pursuant to section 782(a), the Administrator shall adjust the indirect carbon factor to avoid rebates to the eligible entity for costs that the Administrator determines were not incurred by the industrial entity because the allowances were freely allocated to the eligible entity's electricity provider and used for the benefit of industrial consumers.

(4) GREENHOUSE GAS INTENSITY CALCULATIONS.—The Administrator shall calculate the average direct greenhouse gas emissions (expressed in tons of carbon dioxide equivalent) per unit of output for all covered entities in each eligible industrial sector every four years using an average of the two most recent years of the best available data.

(5) ENSURING EFFICIENCY IMPROVEMENTS.—When making greenhouse gas calculations, the Administrator shall—

(A) limit the average direct greenhouse gas emissions per unit of output, calculated under paragraph (4), for any eligible industrial sector to an amount that is not greater than it was in any previous calculation under this subsection; and

(B) limit the electricity emissions intensity factor, calculated under paragraph (3)(B) and resulting from a change in electricity supply, for any entity to an amount that is not greater than it was during any previous year.

(6) DATA SOURCES.—For the purposes of this subsection—

(A) the Administrator shall use data from the greenhouse gas registry, established under section 713, where it is available; and

(B) each owner or operator of an entity in an eligible industrial sector and each department, agency, and instrumentality of the United States shall provide the Administrator with such information as the Administrator finds

necessary to determine the direct carbon factor and the indirect carbon factor for each entity subject to this section.

(c) TOTAL MAXIMUM DISTRIBUTION.—Notwithstanding subsections (a) and (b), the Administrator shall not distribute more allowances for any vintage year pursuant to this section than are allocated for use under this part pursuant to section 782 for that vintage year. For any vintage year for which the total emission allowance rebates calculated pursuant to this section exceed the number of allowances allocated pursuant to section 782, the Administrator shall reduce each entity's distribution on a pro rata basis so that the total distribution under this section equals the number of allowances allocated under section 782.

Subpart 2—International Reserve Allowance Program

SEC. 766. INTERNATIONAL RESERVE ALLOWANCE PROGRAM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—If the President takes an action described in section 767(c)(3)(B) with respect to a sector then, not later than 24 months after that determination, the Administrator shall issue regulations—

(A) determining an appropriate price for and offering for sale to United States importers international reserve allowances;

(B) requiring the submission of appropriate amounts of such allowances in conjunction with the importation into the United States of a primary product produced or manufactured by that sector;

(C) exempting from the requirements of subparagraph (B) primary products produced in—

(i) foreign countries that the United Nations has identified as among the least developed of developing countries; or

(ii) foreign countries that the President has determined to be responsible for less than 0.5 percent of total global greenhouse gas emissions; and

(D) prohibiting the introduction into interstate commerce of a primary product without submitting the required number of international reserve allowances in accordance with such regulations, unless the product was produced by a covered entity under this title, or by an entity that is or could be regulated under this title.

(2) PURPOSE OF PROGRAM.—The Administrator shall establish the program under paragraph (1) in a manner that addresses, consistent with international agreements to which the United States is a party, the competitive imbalance in the costs of producing or manufacturing primary products in industrial sectors resulting from the difference between—

(A) the direct and indirect costs of complying with this title; and

(B) the direct and indirect costs, if any, of complying in other countries with greenhouse gas regulatory programs, requirements, export tariffs, or other measures adopted or imposed to reduce greenhouse gas emissions.

(3) EMISSION ALLOWANCE REBATES.—The Administrator shall take into account the value of emission allowance rebates distributed under subpart 1 when making calculations under paragraph (2).

(4) LIMITATION.—The International Reserve Allowance Program may not begin before January 1, 2025.

(b) COVERED ENTITIES.—International reserve allowances may not be held by covered entities to comply with section 722.

Subpart 3—Presidential Determination

SEC. 767. PRESIDENTIAL REPORTS AND DETERMINATIONS.

(a) REPORT.—Not later than January 1, 2018, the President shall submit a report to Congress on the effectiveness of the distribution of emission allowance rebates under subpart 1 in mitigating carbon leakage in industrial sectors. Such report shall also include—

(1) recommendations on how to better achieve the purposes of this part, including an assessment of the feasibility and usefulness of an International Reserve Allowance Program; and

(2) an assessment of the amount and duration of assistance, including distribution of free allowances, being provided to eligible industrial sectors in other developed countries to mitigate costs of compliance with domestic greenhouse gas reduction programs in such countries.

(b) PRESIDENTIAL DETERMINATION.—Not later than June 30, 2022, and every four years thereafter, the President, in consultation with the Administrator and other appropriate agencies, shall determine, for each eligible industrial sector, whether more than 70 percent of global output for that sector is produced or manufactured in countries that have met at least one of the following criteria:

(1) The country is a party to an international agreement to which the United States is a party that includes a nationally enforceable greenhouse gas emissions reduction commitment for that country that is at least as stringent as that of the United States.

(2) The country is a party to a multilateral or bilateral emission reduction agreement for that sector to which the United States is a party.

(3) The country has an annual energy or greenhouse gas intensity, as described in section 764(b)(2)(A)(i), for the sector that is equal to or less than the energy or greenhouse gas intensity for such sector in the United States in the most recent calendar year for which data are available.

(4) The country has implemented policies, including sectoral caps, export tariffs, production fees, electricity generation regulations, or greenhouse gas emissions fees, that individually or collectively impose an incremental increase on the cost of production associated with greenhouse gas emissions from the sector that is at least 60 percent of the cost of complying with this title in the United States for such sector, averaged over a two-year period.

(c) EFFECT OF PRESIDENTIAL DETERMINATION.—If the President makes a determination under subsection (b) with respect to an eligible industrial sector that 70 percent or less of the global output for the sector is produced or manufactured in countries that have met

one or more of the criteria in subsection (b), then the President shall, not later than June 30, 2022, and every four years thereafter—

(1) assess the extent to which the emission allowance rebates provided pursuant to subpart 1 have mitigated or addressed, or could mitigate or address, carbon leakage in that sector;

(2) assess the extent to which an International Reserve Allowance Program has mitigated or addressed, or could mitigate or address, carbon leakage in that sector and the feasibility of establishing such a program; and

(3) with respect to that sector—

(A) modify the percentage by which direct and indirect carbon factors will be multiplied under section 765(a)(1)(B);

(B) implement an International Reserve Allowance Program under section 766 for the products of the sector; or

(C) take the actions in both subparagraph (A) and (B).

(d) REPORT TO CONGRESS.—Not later than June 30, 2022, and every four years thereafter, the President shall transmit to the Congress a report providing notice of any determination made under subsection (b), explaining the reasons for such determination, and identifying the actions taken by the President under subsection (c).

(e) LIMITATION.—The President may only implement an International Reserve Allowance Program for sectors producing primary products.

(f) IRON AND STEEL SECTOR.—For the purposes of this subpart, the Administrator shall consider to be in the same industrial sector—

(1) entities using integrated iron and steelmaking technologies (including coke ovens, blast furnaces, and other ironmaking technologies); and

(2) entities using electric arc furnace technologies.

PART H—DISPOSITION OF ALLOWANCES

SEC. 781. ALLOCATION OF ALLOWANCES FOR SUPPLEMENTAL REDUCTIONS.

(a) IN GENERAL.—The Administrator shall allocate for each vintage year the following percentage of the emission allowances established under section 721(a), for distribution in accordance with part E:

(1) For vintage years 2012 through 2025, 5 percent.

(2) For vintage years 2026 through 2030, 3 percent.

(3) For vintage years 2031 through 2050, 2 percent.

(b) ADJUSTMENT.—The Administrator shall modify the percentages set forth in subsection (a) as necessary to ensure the achievement of the annual supplemental emission reduction objective for 2020, and the cumulative reduction objective through 2025, set forth in section 753(b)(1).

(c) CARRYOVER.—If the Administrator has not distributed all of the allowances allocated pursuant to this section for a given vintage year by the end of that year, the Administrator shall—

(1) auction the remaining emission allowances under section 791 not later than March 31 of the year following that vintage year; and

(2) increase the allocation for the vintage year after the vintage year for which emission allowances were undistributed by the amount of undistributed emission allowances.

SEC. 782. ALLOCATION OF EMISSION ALLOWANCES.

(a) ELECTRICITY CONSUMERS.—The Administrator shall allocate emission allowances for the benefit of electricity consumers, to be distributed in accordance with section 783 in the following amounts:

(1) For vintage years 2012 and 2013, 43.75 percent of the emission allowances established for each year under section 721(a).

(2) For vintage years 2014 and 2015, 38.89 percent of the emission allowances established for each year under section 721(a).

(3) For vintage years 2016 through 2025, 35.00 percent of the emission allowances established for each year under section 721(a).

(4) For vintage year 2026, 28 percent of the emission allowances established for each year under section 721(a).

(5) For vintage year 2027, 21 percent of the emission allowances established for each year under section 721(a).

(6) For vintage year 2028, 14 percent of the emission allowances established for each year under section 721(a).

(7) For vintage year 2029, 7 percent of the emission allowances established for each year under section 721(a).

(b) NATURAL GAS CONSUMERS.—The Administrator shall allocate emission allowances for the benefit of natural gas consumers to be distributed in accordance with section 784 in the following amounts:

(1) For vintage years 2016 through 2025, 9 percent of the emission allowances established for each year under section 721(a).

(2) For vintage year 2026, 7.2 percent of the emission allowances established for each year under section 721(a).

(3) For vintage year 2027, 5.4 percent of the emission allowances established for each year under section 721(a).

(4) For vintage year 2028, 3.6 percent of the emission allowances established for each year under section 721(a).

(5) For vintage year 2029, 1.8 percent of the emission allowances established for each year under section 721(a).

(c) HOME HEATING OIL AND PROPANE CONSUMERS.—The Administrator shall allocate emission allowances for the benefit of home heating oil and propane consumers to be distributed in accordance with section 785 in the following amounts:

(1) For vintage years 2012 and 2013, 1.875 percent of the emission allowances established for each year under section 721(a).

(2) For vintage years 2014 and 2015, 1.67 percent of the emission allowances established for each year under section 721(a).

(3) For vintage years 2016 through 2025, 1.5 percent of the emission allowances established for each year under section 721(a).

(4) For vintage year 2026, 1.2 percent of the emission allowances established for each year under section 721(a).

(5) For vintage year 2027, 0.9 percent of the emission allowances established for each year under section 721(a).

(6) For vintage year 2028, 0.6 percent of the emission allowances established for each year under section 721(a).

(7) For vintage year 2029, 0.3 percent of the emission allowances established for each year under section 721(a).

(d) LOW INCOME CONSUMERS.—For each vintage year starting in 2012, the Administrator shall auction pursuant to section 791 15 percent of the emission allowances established for each year under section 721(a), with the proceeds used for the benefit of low income consumers to fund the program set forth in subtitle C of title IV of American Clean Energy and Security Act of 2009.

(e) TRADE-VULNERABLE INDUSTRIES.—The Administrator shall allocate emission allowances to energy-intensive, trade-exposed entities, to be distributed in accordance with section 765, in the following amounts:

(1) For vintage years 2012 and 2013, up to 2.0 percent of the emission allowances established for each year under section 721(a).

(2) For vintage year 2014, up to 15 percent of the emission allowances established for that year under section 721(a).

(3) For vintage year 2015, up to the product of the amount specified in paragraph (2), multiplied by the quantity of emission allowances established for 2015 under section 721(a) divided by the quantity of emission allowances established for 2014 under section 721(a).

(4) For vintage year 2016, up to the product of the amount specified in paragraph (3), multiplied by the quantity of emission allowances established for 2015 under section 721(a) divided by the quantity of emission allowances established for 2014 under section 721(a).

(5) For vintage years 2017 through 2025, up to the product of the amount specified in paragraph (4), multiplied by the quantity of emission allowances established for that year under section 721(a) divided by the quantity of emission allowances established for 2016 under section 721(a).

(6) For vintage years 2026 through 2050, up to the product of the amount specified in paragraph (4)—

(A) multiplied by the quantity of emission allowances established for the applicable year during 2026 through 2050 under section 721(a) divided by the quantity of emission allowances established for 2016 under section 721(a); and

(B) multiplied by a factor, not exceeding 100 percent, that shall equal 90 percent for 2026 and decline 10 percent for each year thereafter until reaching zero,

except that, if the President sets one or more factors for a year under section 767(c)(3)(A), the highest factor set (not exceeding 100 percent) shall be used for that year instead of the factor specified in subparagraph (B).

(f) DEPLOYMENT OF CARBON CAPTURE AND SEQUESTRATION TECHNOLOGY.—

(1) ANNUAL ALLOCATION.—The Administrator shall allocate emission allowances for the deployment of carbon capture and sequestration technology to be distributed in accordance with section 786 in the following amounts:

(A) For vintage years 2014 through 2017, 1.75 percent of the emission allowances established for each year under section 721(a).

(B) For vintage years 2018 and 2019, 4.75 percent of the emission allowances established for each year under section 721(a).

(C) For vintage years 2020 through 2050, 5 percent of the emission allowances established for each year under section 721(a).

(2) CARRYOVER.—If the Administrator has not distributed all of the allowances allocated pursuant to this subsection for a given vintage year by the end of that year, the Administrator shall—

(A) auction those emission allowances under section 791 not later than March 31 of the year following that vintage year; and

(B) increase the allocation under this subsection for the vintage year after the vintage year for which emission allowances were undisbursed by the amount of undisbursed emission allowances, but only to the extent that allowances for that later year are to be auctioned.

(g) INVESTMENT IN ENERGY EFFICIENCY AND RENEWABLE ENERGY.—The Administrator shall allocate emission allowances to invest in energy efficiency and renewable energy as follows:

(1) To be distributed in accordance with section 132 of the American Clean Energy and Security Act of 2009 in the following amounts:

(A) For vintage years 2012 through 2015, 9.5 percent of the emission allowances established for each year under section 721(a).

(B) For vintage years 2016 through 2017, 6.5 percent of the emission allowances established for each year under section 721(a).

(C) For vintage years 2018 through 2021, 5.5 percent of the emission allowances established for each year under section 721(a).

(D) For vintage years 2022 through 2025, 1.0 percent of the emission allowances established for each year under section 721(a).

(E) For vintage years 2026 through 2050, 4.5 percent of the emission allowances established for each year under section 721(a).

(F) At the same time the vintage year 2022 through 2025 allowances are distributed, 3.55 percent of emission allowances established under section 721(a) for the vintage year four years greater shall also be distributed (which shall be in addition to the emission allowances in subparagraph (E)).

(2) To be distributed in accordance with section 201 of the American Clean Energy and Security Act of 2009, for each vintage year from 2012 through 2050, 0.5 percent of emission allowances established under section 721(a).

(h) CLEAN ENERGY INNOVATION CENTERS.—For each vintage year from 2012 through 2050, the Administrator shall allocate for Clean Energy Innovation Centers, 1.5 percent of emission allowances es-

tablished under section 721(a), to be distributed in accordance with section 171 of the American Clean Energy and Security Act of 2009.

(i) INVESTMENT IN CLEAN VEHICLE TECHNOLOGY.—The Administrator shall allocate emission allowances to invest in the development and deployment of clean vehicles, to be distributed in accordance with section 124 of the American Clean Energy and Security Act of 2009 in the following amounts:

(1) For vintage years 2012 through 2017, 3 percent of the emission allowances established for each year under section 721(a).

(2) For vintage years 2018 through 2025, 1 percent of the emission allowances established for each year under section 721(a).

(j) DOMESTIC FUEL PRODUCTION.—For vintage years 2014 through 2026, the Administrator shall allocate 2.0 percent of the emission allowances established under section 721(a) to domestic refiners, to be distributed in accordance with section 787.

(k) INVESTMENT IN WORKERS.—The Administrator shall auction pursuant to section 791 emission allowances for workers in the following amounts and shall report to the Secretary of Labor the amount of proceeds from the sale of these allowances:

(1) For vintage years 2012 through 2021, 0.5 percent of the emission allowances established for each year under section 721(a).

(2) For vintage years 2022 through 2050, 1.0 percent of the emission allowances established for each year under section 721(a).

(l) DOMESTIC ADAPTATION.—The Administrator shall allocate emission allowances for domestic adaptation as follows:

(1) To be distributed in accordance with section 453 of the American Clean Energy and Security Act of 2009 in the following amounts:

(A) For vintage years 2012 through 2021, 0.9 percent of the emission allowances established for each year under section 721(a).

(B) For vintage years 2022 through 2026, 1.9 percent of the emission allowances established for each year under section 721(a).

(C) For vintage years 2027 through 2050, 3.9 percent of the emission allowances established for each year under section 721(a).

(2) For vintage year 2012 and thereafter, the Administrator shall auction, pursuant to section 791, 0.1 percent of the emission allowances established for each year under section 721(a), and shall deposit the proceeds in the Climate Change Health Protection and Promotion Fund established by section 467 of the American Clean Energy and Security Act of 2009.

(m) WILDLIFE AND NATURAL RESOURCE ADAPTATION.—The Administrator shall allocate emission allowances for wildlife and natural resource adaptation as follows:

(1) To be distributed to State agencies in accordance with section 480(c)(1) of the American Clean Energy and Security Act of 2009 in the following amounts:

(A) For vintage years 2012 through 2021, 0.385 percent of the emission allowances established for each year under section 721(a).

(B) For vintage years 2022 through 2026, 0.77 percent of the emission allowances established for each year under section 721(a).

(C) For vintage years 2027 through 2050, 1.54 percent of the emission allowances established for each year under section 721(a).

(2) To be auctioned pursuant to section 791, with the proceeds to be deposited in the Natural Resources Climate Change Adaptation Fund established pursuant to section 480(a), in the following amounts:

(A) For vintage years 2012 through 2021, 0.615 percent of the emission allowances established for each year under section 721(a).

(B) For vintage years 2022 through 2026, 1.23 percent of the emission allowances established for each year under section 721(a).

(C) For vintage years 2027 through 2050, 2.46 percent of the emission allowances established for each year under section 721(a).

(n) INTERNATIONAL ADAPTATION.—The Administrator shall allocate emission allowances for international adaptation to be distributed in accordance with part 2 of subtitle E of title IV of the American Clean Energy and Security Act of 2009 in the following amounts:

(1) For vintage years 2012 through 2021, 1.0 percent of the emission allowances established for each year under section 721(a).

(2) For vintage years 2022 through 2026, 2.0 percent of the emission allowances established for each year under section 721(a).

(3) For vintage years 2027 through 2050, 4.0 percent of the emission allowances established for each year under section 721(a).

(o) INTERNATIONAL CLEAN TECHNOLOGY DEPLOYMENT.—The Administrator shall allocate emission allowances for international clean technology deployment for distribution in accordance with subtitle D of title IV of the American Clean Energy and Security Act of 2009 in the following amounts:

(1) For vintage years 2012 through 2021, 1.0 percent of the emission allowances established for each year under section 721(a).

(2) For vintage years 2022 through 2026, 2.0 percent of the emission allowances established for each year under section 721(a).

(3) For vintage years 2027 through 2050, 4.0 percent of the emission allowances established for each year under section 721(a).

(p) RELEASE OF FUTURE ALLOWANCES.—The Administrator shall make future year allowances available by auctioning allowances, pursuant to section 791, in the following amounts:

(1) In each of calendar years 2014 through 2019, a string of 0.70 billion allowances with vintage years 12 to 17 years after

the year of the auction, with an equal number of allowances from each vintage year in the string.

(2) In each of calendar years 2020 through 2025, a string of 0.50 billion allowances with vintage years 12 to 17 years after the year of the auction, with an equal number of allowances from each vintage year in the string.

(3) In each of calendar years 2026 through 2030, a string of 0.3 billion allowances with vintage years 12 to 17 years after the year of the auction, with an equal number of allowances from each vintage year in the string.

(q) DEFICIT REDUCTION.—

(1) For each of vintage years 2012 through 2025, any allowances not designated for distribution or auction pursuant to section 781, subsections (a) through (o) of this section, or section 790 shall be auctioned by the Administrator pursuant to section 791 and the proceeds shall be deposited into the Treasury.

(2) Unless otherwise specified, any allowances allocated pursuant to subsections (a) through (o) and not distributed by March 31 of the calendar year following the allowance's vintage year, shall be auctioned by the Administrator and the proceeds shall be deposited into the Treasury.

(3) For auctions conducted through calendar year 2020 pursuant to subsection (p), the auction proceeds shall be deposited into the Treasury.

(r) CLIMATE CHANGE CONSUMER REFUND.—

(1) For each of vintage years 2026 through 2050, the Administrator shall auction the following allowances established under section 721(a) and deposit the proceeds into the Climate Change Consumer Refund Account:

(A) Any allowances not designated for distribution or auction pursuant to section 781, subsections (a) through (p) of this section, or section 790.

(B) Unless otherwise specified, any allowances allocated pursuant to subsections (a) through (o) and not distributed by March 31 of the calendar year following the allowance's vintage year.

(2) For auctions conducted pursuant to subsection (p) in calendar years 2021 and thereafter, the Administrator shall place the proceeds from the sales of the these allowances into the Climate Change Consumer Refund Account. Funds deposited into the Climate Change Consumer Refund Account shall be used as specified in section 789 and shall be available for expenditure, without further appropriation or fiscal year limitation.

SEC. 783. ELECTRICITY CONSUMERS.

(a) DEFINITIONS.—For purposes of this section:

(1) ELECTRICITY LOCAL DISTRIBUTION COMPANY.—The term "electricity local distribution company" means an electric utility—

(A) that has a legal, regulatory, or contractual obligation to deliver electricity directly to retail consumers in the United States, regardless of whether that entity or another entity sells the electricity as a commodity to those retail consumers; and

(B) the retail rates of which, except in the case of a registered electric cooperative, are regulated by a State regu-

latory authority, regulatory commission, municipality, public utility, or by an Indian tribe pursuant to tribal law.

(2) LONG-TERM CONTRACT GENERATOR.—The term "long-term contract generator" means a qualifying small power production facility or a qualifying cogeneration facility (within the meaning of section 3(17)(C) or 3(18)(B) of the Federal Power Act), or a new independent power production facility (within the meaning of section 416(a)(2) of this Act, except that subparagraph (C) of such definition shall not apply for purposes of this paragraph), that is—

(A) a covered entity;

(B) as of the commencement of operation, a facility consisting of one or more utility units with total installed net output capacity (in MWe) of no more than 130 percent of the facility's total planned net output capacity (in MWe);

(C) as of the date of enactment of this title, a facility with a power sales agreement executed before January 1, 2007, that governs the facility's electricity sales and provides for sales at a price (whether a fixed price or a price formula) for electricity that does not allow for recovery of the costs of compliance with the limitation on greenhouse gas emissions under this title; and

(D) not a merchant coal generator.

(3) MERCHANT COAL GENERATOR.—The term "merchant coal generator" means an electric generation facility that—

(A) is a covered entity;

(B) derives at least 85 percent of its heat input from coal, petroleum coke, or any combination of these 2 fuels;

(C) is not owned by a Federal, State, or regional agency or power authority; and

(D) generates electricity for sale to others, provided that such sales are not subject to—

(i) retail rate regulation by a State public utility commission; or

(ii) self-regulation of rates by a local government, State agency, or electric cooperative.

(4) STATE REGULATORY AUTHORITY.—The term "State regulatory authority" has the meaning given that term in section 3(17) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602(17)).

(b) ELECTRICITY LOCAL DISTRIBUTION COMPANIES.—

(1) ALLOCATION.—Not later than June 30 of 2011 and each calendar year thereafter through 2028, the Administrator shall distribute to electricity local distribution companies for the benefit of retail ratepayers the quantity of emission allowances allocated for the electricity sector for the following vintage year pursuant to section 782(a), provided that the Administrator shall first subtract from such quantity and distribute or reserve for distribution the quantity of emission allowances for the relevant vintage year that are required for distribution under subsections (c) and (d) of this section.

(2) DISTRIBUTION OF ALLOWANCES BASED ON EMISSIONS.—

(A) IN GENERAL.—For each vintage year, 50 percent of the emission allowances available for distribution under paragraph (1) shall be distributed by the Administrator among

individual electricity local distribution companies ratably based on the annual average carbon dioxide emissions attributable to generation of electricity delivered at retail by each such company during the base period determined under subparagraph (B).

(B) BASE PERIOD.—

(i) VINTAGE YEARS 2012 AND 2013.—For vintage years 2012 and 2013, an electricity local distribution company's base period shall be—

(I) calendar years 2006 through 2008; or

(II) any 3 consecutive calendar years between 1999 and 2008, inclusive, that such company selects, provided that the company timely informs the Administrator of such selection.

(ii) VINTAGE YEARS 2014 AND THEREAFTER.—For vintage years 2014 and thereafter, the base period shall be—

(I) the base period selected under clause (i); or

(II) any 3 consecutive calendar years between 2009 through 2012, inclusive, or, for local distribution companies with new units that are not fully operational before 2012, solely calendar year 2012, provided that such company selects a period from among these options and timely informs the Administrator of such selection.

(C) DETERMINATION OF EMISSIONS.—As part of the regulations promulgated pursuant to subsection (e), the Administrator, after consultation with the Energy Information Administration, shall determine the average amount of carbon dioxide emissions attributable to generation of electricity delivered at retail by each electricity local distribution company for each of the years 1999 through 2009 or the most recent calendar year for which appropriate data are available, taking into account entities' electricity generation, electricity purchases, and electricity sales. Not later than March 31, 2013, the Administrator, after consultation with the Energy Information Administration, shall update such determination to include emissions for any additional calendar years through 2012. Such determinations shall be as precise as practicable, taking into account the nature of data currently available and the nature of markets and regulation in effect in various regions of the country. The following requirements shall apply to such determinations:

(i) The Administrator shall determine the amount of fossil fuel-based electricity delivered at retail by each electricity local distribution company, and shall use appropriate emission factors to calculate carbon dioxide emissions associated with the generation of such electricity.

(ii) Where it is not practical to determine the precise fuel mix for the electricity delivered at retail by an individual electricity local distribution company, the Administrator may use the best available data, including average data on a regional basis with reference to Regional Transmission Organizations or regional entities

(as that term is defined in section 215(a)(7) of the Federal Power Act (16 U.S.C. 824o(a)(7)), to estimate fuel mix and emissions. Different methodologies may be applied in different regions if appropriate to obtain the most accurate estimate.

(3) DISTRIBUTION OF ALLOWANCES BASED ON DELIVERIES.—

(A) INITIAL ALLOCATION FORMULA.—Except as provided in subparagraph (B), for each vintage year, the Administrator shall distribute 50 percent of the emission allowances allocated under paragraph (1) of this subsection among individual electricity local distribution companies ratably based on each electricity local distribution company's annual average retail electricity deliveries for 2006 through 2008, unless the owner or operator of the company selects 3 other consecutive years between 1999 and 2008, inclusive, and timely notifies the Administrator of its selection.

(B) UPDATING.—Prior to distributing 2015 vintage emission allowances under this subparagraph and at 3-year intervals thereafter, the Administrator shall update the distribution formula under this subparagraph to reflect changes in each electricity local distribution company's service territory since the most recent formula was established. For each successive 3-year period, the Administrator shall distribute allowances ratably among individual electricity local distribution companies based on the product of—

(i) each electricity local distribution company's average annual deliveries per customer during calendar years 2006 through 2008, or during the 3 alternative consecutive years selected by such company under subparagraph (A); and

(ii) the number of customers of such electricity local distribution company in the most recent year in which the formula is updated under this clause.

(4) USE OF ALLOWANCES.—

(A) RATEPAYER BENEFIT.—Emission allowances distributed to an electricity local distribution company under this subsection shall be used exclusively for the benefit of retail ratepayers of such electricity local distribution company and may not be used to support electricity sales or deliveries to entities or persons other than such ratepayers.

(B) RATEPAYER CLASSES.—In using emission allowances distributed under this section for the benefit of ratepayers, an electricity local distribution company shall ensure that ratepayer benefits are distributed—

(i) among ratepayer classes ratably based on electricity deliveries to each class; and

(ii) equitably among individual ratepayers within each ratepayer class, including entities that receive emission allowances pursuant to part F.

(C) LIMITATION.—An electricity local distribution company shall not use the value of emission allowances distributed under this subsection to provide to any ratepayer a rebate that is based solely on the quantity of electricity delivered to such ratepayer. To the extent an electricity local dis-

tribution company uses the value of emission allowances distributed under this subsection to provide rebates, it shall, to the maximum extent practicable, provide such rebates with regard to the fixed portion of ratepayers' bills or as a fixed credit or rebate on electricity bills.

(D) GUIDELINES.—As part of the regulations promulgated under subsection (e), the Administrator shall prescribe specific guidelines for the implementation of the requirements of this paragraph.

(5) REGULATORY PROCEEDINGS.—

(A) REQUIREMENT.—No electricity local distribution company shall be eligible to receive emission allowances under this subsection unless the State regulatory authority with authority over such company, or the entity with authority to regulate retail electricity rates of an electricity local distribution company not regulated by a State regulatory authority, has—

(i) promulgated a regulation or completed a rate proceeding (or the equivalent, in the case of a ratemaking entity other than a State regulatory authority) that provides for the full implementation of the requirements of paragraph (4) of this subsection; and

(ii) made available to the Administrator and the public a report describing, in adequate detail, the manner in which the requirements of paragraph (4) will be implemented.

(B) UPDATING.—The Administrator shall require, as a condition of continued receipt of emission allowances under this subsection by an electricity local distribution company, that a new regulation be promulgated or rate proceeding be completed, and a new report be made available to the Administrator and the public, pursuant to subparagraph (A), not less frequently than every 5 years.

(6) PLANS AND REPORTING.—

(A) REGULATIONS.—As part of the regulations promulgated under subsection (e), the Administrator shall prescribe requirements governing plans and reports to be submitted in accordance with this paragraph.

(B) PLANS.—Not later than April 30 of 2011 and every 5 years thereafter through 2026, each electricity local distribution company shall submit to the Administrator a plan, approved by the State regulatory authority or other entity charged with regulating the retail rates of such company, describing such company's plans for the disposition of the value of emission allowances to be received pursuant to this subsection, in accordance with the requirements of this subsection.

(C) REPORTS.—Not later than June 30 of 2013 and each calendar year thereafter through 2031, each electricity local distribution company shall submit a report to the Administrator, and to the relevant State regulatory authority or other entity charged with regulating the retail electricity rates of such company, describing the disposition of the value of any emission allowances received by such company

in the prior calendar year pursuant to this subsection, including—

(i) a description of sales, transfer, exchange, or use by the company for compliance with obligations under this title, of any such emission allowances;

(ii) the monetary value received by the company, whether in money or in some other form, from the sale, transfer, or exchange of emission allowances received by the company under this subsection;

(iii) the manner in which the company's disposition of emission allowances received under this subsection complies with the requirements of this subsection, including each of the requirements of paragraph (4); and

(iv) such other information as the Administrator may require pursuant to subparagraph (A).

(D) PUBLICATION.—The Administrator shall make available to the public all plans and reports submitted under this subsection, including by publishing such plans and reports on the Internet.

(7) AUDITS.—Each year, the Administrator shall audit a representative sample of electricity local distribution companies to ensure that emission allowances distributed under this subsection have been used exclusively for the benefit of retail ratepayers and that such companies are complying with the requirements of this subsection. In selecting companies for audit, the Administrator shall take into account any credible evidence of noncompliance with such requirements. The Administrator shall make available to the public a report describing the results of each such audit, including by publishing such report on the Internet.

(8) ENFORCEMENT.—A violation of any requirement of this subsection shall be a violation of this Act. Each emission allowance the value of which is used in violation of the requirements of this subsection shall be a separate violation.

(c) MERCHANT COAL GENERATORS.—

(1) QUALIFYING EMISSIONS.—The qualifying emissions for a merchant coal generator for a given calendar year shall be the product of the number of megawatt hours of electricity generated by such generator in such calendar year and the average carbon dioxide emissions per megawatt hour generated by such generator during calendar years 2006 through 2008, provided that the number of megawatt hours in a given calendar year for purposes of such calculation shall be reduced in proportion to the portion of such generator's carbon dioxide emissions that are either—

(A) captured and sequestered in such calendar year; or

(B) attributable to the combustion or gasification of renewable biomass, such that the generator is not required to hold emission allowances for such emissions.

(2) PHASE-DOWN SCHEDULE.—The Administrator shall identify an annual phase-down factor, applicable to distributions to merchant coal generators for each of vintage years 2012 through 2029, that corresponds to the overall decline in the amount of emission allowances to be allocated to the electricity

sector in such years pursuant to section 782(a). Such factor shall—

(A) for vintage year 2012, be equal to 1.0;

(B) for each of vintage years 2013 through 2029, correspond to the quotient of—

(i) the quantity of emission allowances allocated to the electricity sector under section 782(a) for such vintage year; divided by

(ii) the quantity of emission allowances allocated to the electricity sector under section 782(a) for vintage year 2012.

(3) DISTRIBUTION OF EMISSION ALLOWANCES.—Not later than March 1 of 2013 and each calendar year through 2030, the Administrator shall distribute emission allowances of the preceding vintage year to the owner or operator of each merchant coal generator equal to the product of—

(A) 0.5;

(B) the qualifying emissions for such merchant coal generator for the preceding year, as determined under paragraph (1); and

(C) the phase-down factor for the preceding calendar year, as identified under paragraph (2).

(4) ADJUSTMENT.—

(A) STUDY.—Not later than July 1, 2014, the Administrator, in consultation with the Federal Energy Regulatory Commission, shall complete a study to determine whether the allocation formula under paragraph (3) is resulting in, or is likely to result in, windfall profits to merchant coal generators or substantially disparate treatment of merchant coal generators operating in different markets or regions.

(B) REGULATION.—If the Administrator, in consultation with the Federal Energy Regulatory Commission, makes an affirmative finding of windfall profits or disparate treatment under subparagraph (A), the Administrator shall, not later than 18 months after the completion of the study described in subparagraph (A), promulgate regulations providing for the adjustment of the allocation formula under paragraph (3) to mitigate, to the extent practicable, such windfall profits, if any, and such disparate treatment, if any.

(5) LIMITATION ON ALLOWANCES.—Notwithstanding paragraph (3) or (4), for any vintage year the Administrator shall distribute under this subsection no more than 10 percent of the total quantity of emission allowances available for such vintage year for distribution to the electricity sector under section 782(a). If the quantity of emission allowances that would otherwise be distributed pursuant to paragraph (3) or (4) for any vintage year would exceed such limit, the Administrator shall distribute 10 percent of the total emission allowances available for distribution under section 782(a) for such vintage year ratably among merchant coal generators based on the applicable formula under paragraph (3) or (4).

(d) GENERATORS WITH LONG-TERM POWER PURCHASE AGREEMENTS.—

(1) RESERVED ALLOWANCES.—Notwithstanding subsections (b) and (c) of this section, the Administrator shall withhold from distribution to electricity local distribution companies a number of emission allowances equal to 105 percent of the emission allowances the Administrator anticipates will be distributed to long-term contract generators under this subsection. If not required to distribute all of these reserved allowances under this subsection, the Administrator shall distribute any remaining emission allowances to the electricity local distribution companies in accordance with subsection (b).

(2) DISTRIBUTION.—Not later than March 1 of 2013 and each calendar year through 2030, the Administrator shall distribute to the owner or operator of each long-term contract generator the number of emission allowances of the preceding vintage year that are equal to the number of tons of carbon dioxide emitted as a result of a qualifying long-term power purchase agreement referred to in subsection (a)(2)(C).

(3) DURATION.—A long-term contract generator shall cease to be eligible to receive allocations under this subsection upon the earliest of the following dates:

(A) The date when the facility no longer qualifies as a qualifying small power production facility or a qualifying cogeneration facility (within the meaning of section 3(17)(C) or 3(18)(B) of the Federal Power Act), or a new independent power production facility (within the meaning of section 416(a)(2) of this Act, except that subparagraph (C) of such definition shall not apply for purposes of this clause).

(B) The date when the facility no longer meets the total installed net output capacity criterion required to be met as of the commencement of operation in subsection (a)(2)(B).

(C) The date when the power purchase agreement referred to in subsection (a)(2)(C)—

(i) expires;

(ii) is terminated; or

(iii) is amended in any way that changes the location of the facility, the price (whether a fixed price or price formula) for electricity sold under such agreement, the quantity of electricity sold under the agreement, or the expiration or termination date of the agreement.

(4) ELIGIBILITY.—To be eligible to receive allowance distributions under this subsection, the owner or operator of a long-term contract generator shall submit each of the following in writing to the Administrator within 180 days after the date of enactment of this title, and not later than September 30 of each vintage year for which such generator wishes to receive emission allowances:

(A) A certificate of representation described in section 700(15).

(B) An identification of each owner and each operator of the facility.

(C) An identification of the units at the facility and the location of the facility.

(D) A written certification by the designated representative that the facility meets all the requirements of the definition of a long-term contract generator.

(E) The expiration date of the power purchase agreement referred to in subsection (a)(2)(C).

(F) A copy of the power purchase agreement referred to in subsection (a)(2)(C).

(5) NOTIFICATION.—Not later than 30 days after a facility loses, in accordance with paragraph (3), its eligibility for emission allowances distributed pursuant to this subsection, the designated representative of such facility shall notify the Administrator in writing when, and on what basis, the facility lost its eligibility to receive emission allowances.

(e) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator, in consultation with the Federal Energy Regulatory Commission, shall promulgate regulations to implement the requirements of this section.

SEC. 784. NATURAL GAS CONSUMERS.

(a) DEFINITIONS.—For purposes of this section:

(1) NATURAL GAS LOCAL DISTRIBUTION COMPANY.—The term "natural gas local distribution company" means a natural gas local distribution company that is a covered entity.

(2) COST-EFFECTIVE.—The term "cost-effective", with respect to an energy efficiency program, means that the program meets the Total Resource Cost Test, which requires that the net present value of economic benefits over the life of the program, including avoided supply and delivery costs and deferred or avoided investments, is greater than the net present value of the economic costs over the life of the program, including program costs and incremental costs borne by the energy consumer.

(b) ALLOCATION.—Not later than June 30 of 2015 and each calendar year thereafter through 2028, the Administrator shall distribute to natural gas local distribution companies for the benefit of retail ratepayers the quantity of emission allowances allocated for the following vintage year pursuant to section 782(b). Such allowances shall be distributed among local natural gas distribution companies based on the following formula:

(1) INITIAL FORMULA.—Except as provided in paragraph (2), for each vintage year, the Administrator shall distribute emission allowances among natural gas local distribution companies ratably based on each such company's annual average retail natural gas deliveries for 2006 through 2008, unless the owner or operator of the company selects 3 other consecutive years between 1999 and 2008, inclusive, and timely notifies the Administrator of its selection.

(2) UPDATING.—Prior to distributing 2019 vintage emission allowances and at 3-year intervals thereafter, the Administrator shall update the distribution formula under this subsection to reflect changes in each natural gas local distribution company's service territory since the most recent formula was established. For each successive 3-year period, the Administrator shall distribute allowances ratably among natural gas local distribution companies based on the product of—

(A) each natural gas local distribution company's average annual natural gas deliveries per customer during calendar years 2006 through 2008, or during the 3 alternative consecutive years selected by such company under paragraph (1); and

(B) the number of customers of such natural gas local distribution company in the most recent year in which the formula is updated under this paragraph.

(c) USE OF ALLOWANCES.—

(1) RATEPAYER BENEFIT.—Emission allowances distributed to a natural gas local distribution company under this section shall be used exclusively for the benefit of retail ratepayers of such natural gas local distribution company and may not be used to support natural gas sales or deliveries to entities or persons other than such ratepayers.

(2) RATEPAYER CLASSES.—In using emission allowances distributed under this section for the benefit of ratepayers, a natural gas local distribution company shall ensure that ratepayer benefits are distributed—

(A) among ratepayer classes ratably based on natural gas deliveries to each class; and

(B) equitably among individual ratepayers within each ratepayer class.

(3) LIMITATION.—A natural gas local distribution company shall not use the value of emission allowances distributed under this section to provide to any ratepayer a rebate that is based solely on the quantity of natural gas delivered to such ratepayer. To the extent a natural gas local distribution company uses the value of emission allowances distributed under this section to provide rebates, it shall, to the maximum extent practicable, provide such rebates with regard to the fixed portion of ratepayers' bills or as a fixed creditor rebate on natural gas bills.

(4) ENERGY EFFICIENCY PROGRAMS.—The value of no less than one third of the emission allowances distributed to natural gas local distribution companies pursuant to this section in any calendar year shall be used for cost-effective energy efficiency programs for natural gas consumers. Such programs must be authorized and overseen by the State regulatory authority, or by the entity with regulatory authority over retail natural gas rates in the case of a natural gas local distribution company that is not regulated by a State regulatory authority.

(5) GUIDELINES.—As part of the regulations promulgated under subsection (h), the Administrator shall prescribe specific guidelines for the implementation of the requirements of this subsection.

(d) REGULATORY PROCEEDINGS.—

(1) REQUIREMENT.—No natural gas local distribution company shall be eligible to receive emission allowances under this section unless the State regulatory authority with authority over such company, or the entity with authority to regulate retail rates of a natural gas local distribution company not regulated by a State regulatory authority, has—

(A) promulgated a regulation or completed a rate proceeding (or the equivalent, in the case of a ratemaking entity other than a State regulatory authority) that provides for the full implementation of the requirements of subsection (c); and

(B) made available to the Administrator and the public a report describing, in adequate detail, the manner in

which the requirements of subsection (c) will be implemented.

(2) UPDATING.—The Administrator shall require, as a condition of continued receipt of emission allowances under this section, that a new regulation be promulgated or rate proceeding be completed, and a new report be made available to the Administrator and the public, pursuant to paragraph (1), not less frequently than every 5 years.

(e) PLANS AND REPORTING.—

(1) REGULATIONS.—As part of the regulations promulgated under subsection (h), the Administrator shall prescribe requirements governing plans and reports to be submitted in accordance with this subsection.

(2) PLANS.—Not later than April 30 of 2015 and every 5 years thereafter through 2025, each natural gas local distribution company shall submit to the Administrator a plan, approved by the State regulatory authority or other entity charged with regulating the retail rates of such company, describing such company's plans for the disposition of the value of emission allowances to be received pursuant to this section, in accordance with the requirements of this section.

(3) REPORTS.—Not later than June 30 of 2017 and each calendar year thereafter through 2031, each natural gas local distribution company shall submit a report to the Administrator, approved by the relevant State regulatory authority or other entity charged with regulating the retail natural gas rates of such company, describing the disposition of the value of any emission allowances received by such company in the prior calendar year pursuant to this subsection, including—

(A) a description of sales, transfer, exchange, or use by the company for compliance with obligations under this title, of any such emission allowances;

(B) the monetary value received by the company, whether in money or in some other form, from the sale, transfer, or exchange of emission allowances received by the company under this section;

(C) the manner in which the company's disposition of emission allowances received under this subsection complies with the requirements of this section, including each of the requirements of subsection (c);

(D) the cost-effectiveness of, and energy savings achieved by, energy efficiency programs supported through such emission allowances; and

(E) such other information as the Administrator may require pursuant to paragraph (1).

(4) PUBLICATION.—The Administrator shall make available to the public all plans and reports submitted by natural gas local distribution companies under this subsection, including by publishing such plans and reports on the Internet.

(f) AUDITS.—Each year, the Administrator shall audit a representative sample of natural gas local distribution companies to ensure that emission allowances distributed under this section have been used exclusively for the benefit of retail ratepayers and that such companies are complying with the requirements of this section. In selecting companies for audit, the Administrator shall take into ac-

count any credible evidence of noncompliance with such requirements. The Administrator shall make available to the public a report describing the results of each such audit, including by publishing such report on the Internet.

(g) ENFORCEMENT.—A violation of any requirement of this section shall be a violation of this Act. Each emission allowance the value of which is used in violation of the requirements of this section shall be a separate violation.

(h) REGULATIONS.—Not later than January 1, 2014, the Administrator, in consultation with the Federal Energy Regulatory Commission, shall promulgate regulations to implement the requirements of this section.

SEC. 785. HOME HEATING OIL AND PROPANE CONSUMERS.

(a) DEFINITIONS.—For purposes of this section:

(1) CARBON CONTENT.—The term "carbon content" means the amount of carbon dioxide that would be emitted as a result of the combustion of a fuel.

(2) COST-EFFECTIVE.—The term "cost-effective" has the meaning given that term in section 784(a)(2).

(b) ALLOCATION.—Not later than September 30 of each of calendar years 2012 through 2029, the Administrator shall distribute among the States, in accordance with this section, the quantity of emission allowances allocated pursuant to section 782(c).

(c) DISTRIBUTION AMONG STATES.—The Administrator shall distribute emission allowances among the States under this section each year ratably based on the ratio of—

(1) the carbon content of home heating oil and propane sold to consumers within each State in the preceding year for residential or commercial uses; to

(2) the carbon content of home heating oil and propane sold to consumers within the United States in the preceding year for residential or commercial uses.

(d) USE OF ALLOWANCES.—

(1) IN GENERAL.—States shall use emission allowances distributed under this section exclusively for the benefit of consumers of home heating oil or propane for residential or commercial purposes. Such proceeds shall be used exclusively for—

(A) cost-effective energy efficiency programs for consumers that use home heating oil or propane for residential or commercial purposes; or

(B) rebates or other direct financial assistance programs for consumers of home heating oil or propane used for residential or commercial purposes.

(2) ADMINISTRATION AND DELIVERY MECHANISMS.—In administering programs supported by this section, States shall—

(A) use no less than 50 percent of the value of emission allowances received under this section for cost-effective energy efficiency programs to reduce consumers' overall fuel costs;

(B) to the extent practicable, deliver consumer support under this section through existing energy efficiency and consumer energy assistance programs or delivery mechanisms, including, where appropriate, programs or mechanisms administered by parties other than the State; and

(C) seek to coordinate the administration and delivery of energy efficiency and consumer energy assistance programs supported under this section, with one another and with existing programs for various fuel types, so as to deliver comprehensive, fuel-blind, coordinated programs to consumers.

(e) REPORTING.—Each State receiving emission allowances under this section shall submit to the Administrator, within 12 months of each receipt of such allowances, a report, in accordance with such requirements as the Administrator may prescribe, that—

(1) describes the State's use of emission allowances distributed under this section, including a description of the energy efficiency and consumer assistance programs supported with such allowances;

(2) demonstrates the cost-effectiveness of, and the energy savings achieved by, energy efficiency programs supported under this section; and

(3) includes a report prepared by an independent third party, in accordance with such regulations as the Administrator may promulgate, evaluating the performance of the energy efficiency and consumer assistance programs supported under this section.

(f) ENFORCEMENT.—If the Administrator determines that a State is not in compliance with this section, the Administrator may withhold a portion of the emission allowances, the quantity of which is equal to up to twice the quantity of the allowances that the State failed to use in accordance with the requirements of this section, that such State would otherwise be eligible to receive under this section in later years. Allowances withheld pursuant to this subsection shall be distributed among the remaining States ratably in accordance with the formula in subsection (c).

SEC. 786. COMMERCIAL DEPLOYMENT OF CARBON CAPTURE AND SEQUESTRATION TECHNOLOGIES.

(a) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator shall promulgate regulations providing for the distribution of emission allowances allocated pursuant to section 782(f), pursuant to the requirements of this section, to support the commercial deployment of carbon capture and sequestration technologies in both electric power generation and industrial operations.

(b) ELIGIBILITY CRITERIA.—To be eligible to receive emission allowances under this section, the owner or operator of a project must—

(1) implement carbon capture and sequestration technology—

(A) at an electric generating unit that—

(i) has a nameplate capacity of 200 megawatts or more;

(ii) in the case of a retrofit application, applies the carbon capture and sequestration technology to the flue gas from at least 200 megawatts of the total nameplate generating capacity of the unit, provided that clause (i) shall apply without exception;

(iii) derives at least 50 percent of its annual fuel input from coal, petroleum coke, or any combination of these 2 fuels; and

(iv) upon implementation of capture and sequestration technology, will achieve an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by—

(I) the unit, measured on an annual basis, determined in accordance with section 812(b)(2); or

(II) in the case of retrofit applications under clause (ii), the treated portion of flue gas from the unit, measured on an annual basis, determined in accordance with section 812(b)(2); or

(B) at an industrial source that—

(i) absent carbon capture and sequestration, would emit greater than 50,000 tons per year of carbon dioxide;

(ii) upon implementation, will achieve an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the emission point, measured on an annual basis, determined in accordance with section 812(b)(2); and

(iii) does not produce a liquid transportation fuel from a solid fossil-based feedstock;

(2) geologically sequester carbon dioxide at a site that meets all applicable permitting and certification requirements for geologic sequestration, or, pursuant to such requirements as the Administrator may prescribe by regulation, convert captured carbon dioxide to a stable form that will safely and permanently sequester such carbon dioxide;

(3) meet all other applicable State and Federal permitting requirements; and

(4) be located in the United States.

(c) PHASE I DISTRIBUTION TO ELECTRIC GENERATING UNITS.—

(1) APPLICATION.—This subsection shall apply only to projects at the first 6 gigawatts of electric generating units, measured in cumulative generating capacity of such units.

(2) DISTRIBUTION.—The Administrator shall distribute emission allowances allocated under section 782(f) to the owner or operator of each eligible project at an electric generating unit in a quantity equal to the quotient obtained by dividing—

(A) the product obtained by multiplying—

(i) the number of metric tons of carbon dioxide emissions avoided through capture and sequestration of emissions by the project, as determined pursuant to such methodology as the Administrator shall prescribe by regulation; and

(ii) a bonus allowance value, pursuant to paragraph (3); by

(B) the average fair market value of an emission allowance during the preceding year.

(3) BONUS ALLOWANCE VALUES.—

(A) For a generating unit achieving the capture and sequestration of 85 percent or more of the carbon dioxide that otherwise would be emitted by such unit, the bonus allowance value shall be $90.

(B) The Administrator shall by regulation establish a bonus allowance value for each rate of lower capture and

sequestration achieved by a generating unit, from a minimum of $50 per ton for a 50 percent rate and varying directly with increasing rates of capture and sequestration up to $90 per ton for an 85 percent rate.

(C) For a generating unit that achieves the capture and sequestration of at least 50 percent of the carbon dioxide that otherwise would be emitted by such unit by not later than January 1, 2017, the otherwise applicable bonus allowance value under this paragraph shall be increased by $10, provided that the owner of such unit notifies the Administrator of its intent to achieve such rate of capture and sequestration by not later than January 1, 2012.

(D) For a carbon capture and sequestration project sequestering in a geological formation for purposes of enhanced hydrocarbon recovery, the Administrator shall, by regulation, reduce the applicable bonus allowance value under this paragraph to reflect the lower net cost of the project when compared to sequestration into geological formations solely for purposes of sequestration.

(E) All monetary values in this section shall be adjusted annually for inflation.

(d) PHASE II DISTRIBUTION TO ELECTRIC GENERATING UNITS.—

(1) APPLICATION.—This subsection shall apply only to the distribution of emission allowances to carbon capture and sequestration projects at electric generating units after the capacity threshold identified in subsection (c)(1) is reached.

(2) REGULATIONS.—Not later than 2 years prior to the date on which the capacity threshold identified in subsection (c)(1) is projected to be reached, the Administrator shall promulgate regulations to govern the distribution of emission allowances to the owners or operators of eligible projects under this subsection.

(3) REVERSE AUCTIONS.—

(A) IN GENERAL.—Except as provided in paragraph (4), the regulations promulgated under paragraph (2) shall provide for the distribution of emission allowances to the owners or operators of eligible projects under this subsection through reverse auctions, which shall be held no less frequently than once each calendar year. The Administrator may establish a separate auction for each of no more than 5 different project categories, defined on the basis of coal type, capture technology, geological formation type, new unit versus retrofit application, such other factors as the Administrator may prescribe, or any combination thereof. The Administrator may establish appropriate minimum rates of capture and sequestration in implementing this paragraph.

(B) AUCTION PROCESS.—At each reverse auction—

(i) the Administrator shall solicit bids from eligible projects;

(ii) eligible projects participating in the auction shall submit a bid including the desired level of carbon dioxide sequestration incentive per ton and the estimated quantity of carbon dioxide that the project will permanently sequester over 10 years; and

(iii) the Administrator shall select bids, within each auction, for the sequestration amount submitted, beginning with the eligible project submitting the bid for the lowest level of sequestration incentive on a per ton basis and meeting such other requirements as the Administrator may specify, until the amount of funds available for the reverse auction is committed.

(C) FORM OF DISTRIBUTION.—The Administrator shall provide deployment incentives to the owners or operators of eligible projects selected through a reverse auction under this paragraph pursuant to a formula equivalent to that described in subsection (c)(2), except that the incentive level that is bid by the entity shall be substituted for the bonus allowance value.

(4) ALTERNATIVE DISTRIBUTION METHOD.—

(A) IN GENERAL.—If the Administrator determines that reverse auctions would not provide for efficient and cost-effective commercial deployment of carbon capture and sequestration technologies, the Administrator may instead, through regulations promulgated under paragraph (2) or (5), prescribe a schedule for the award of bonus allowances to the owners or operators of eligible projects under this subsection, in accordance with the requirements of this paragraph.

(B) MULTIPLE TRANCHES.—The Administrator shall divide emission allowances available for distribution to the owners or operators of eligible projects into a series of tranches, each supporting the deployment of a specified quantity of cumulative electric generating capacity utilizing carbon capture and sequestration technology, each of which shall not be greater than 6 gigawatts.

(C) METHOD OF DISTRIBUTION.—The Administrator shall distribute emission allowances within each tranche, on a first-come, first-served basis—

(i) based on the date of full-scale operation of capture and sequestration technology; and

(ii) pursuant to a formula, similar to that set forth in subsection (c)(2) (except that the Administrator shall prescribe bonus allowance values different than those set forth in subsection (c)(2)), establishing the number of allowances to be distributed per ton of carbon dioxide sequestered by the project.

(D) REQUIREMENTS.—For each tranche established pursuant to subparagraph (A), the Administrator shall establish a schedule for distributing emission allowances that—

(i) is based on a sliding scale that provides higher bonus allowance values for projects achieving higher rates of capture and sequestration;

(ii) for each capture and sequestration rate, establishes a bonus allowance value that is lower than that established for such rate in the previous tranche (or, in the case of the first tranche, than that established for such rate under subsection (c)(3)); and

(iii) may establish different bonus allowance levels for no more than 5 different project categories, defined

by coal type, capture technology, geological formation type, new unit versus retrofit application, such other factors as the Administrator may prescribe, or any combination thereof.

(E) CRITERIA FOR ESTABLISHING BONUS ALLOWANCE VALUES.—In setting bonus allowance values under this paragraph, the Administrator shall seek to cover no more than the reasonable incremental capital and operating costs of a project that are attributable to implementation of carbon capture, transportation, and sequestration technologies, taking into account—

(i) the reduced cost of compliance with section 722 of this Act;

(ii) the reduced cost associated with sequestering in a geological formation for purposes of enhanced hydrocarbon recovery when compared to sequestration into geological formations solely for purposes of sequestration;

(iii) the relevant factors defining the project category; and

(iv) such other factors as the Administrator determines are appropriate.

(5) REVISION OF REGULATIONS.—The Administrator shall review, and as appropriate revise, the applicable regulations under this subsection no less frequently than every 8 years.

(e) LIMITS FOR CERTAIN ELECTRIC GENERATING UNITS.—

(1) DEFINITIONS.—For purposes of this subsection, the terms "covered EGU" and "initially permitted" shall have the meaning given those terms in section 812 of this Act.

(2) COVERED EGUS INITIALLY PERMITTED FROM 2009 THROUGH 2014.—For a covered EGU that is initially permitted on or after January 1, 2009, and before January 1, 2015, the Administrator shall reduce the quantity of emission allowances that the owner or operator of such covered EGU would otherwise be eligible to receive under this section as follows:

(A) In the case of a unit commencing operation on or before January 1, 2019, if the date in clause (ii)(I) is earlier than the date in clause (ii)(II), by the product of—

(i) 20 percent; and

(ii) the number of years, if any, that have elapsed between—

(I) the earlier of January 1, 2020, or the date that is 5 years after the commencement of operation of such covered EGU; and

(II) the first year that such covered EGU achieves (and thereafter maintains) an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the unit, measured on an annual basis, as determined in accordance with section 812(b)(2).

(B) In the case of a unit commencing operation after January 1, 2019, by the product of—

(i) 20 percent; and

(ii) the number of years between—

(I) the commencement of operation of such covered EGU; and

(II) the first year that such covered EGU achieves (and thereafter maintains) an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the unit, measured on an annual basis, as determined in accordance with section 812(b)(2).

(3) COVERED EGUS INITIALLY PERMITTED FROM 2015 THROUGH 2019.—The owner or operator of a covered EGU that is initially permitted on or after January 1, 2015, and before January 1, 2020, shall be ineligible to receive emission allowances pursuant to this section if such unit, upon commencement of operations (and thereafter), does not achieve and maintain an emission limit that is at least a 50 percent reduction in emissions of the carbon dioxide produced by the unit, measured on an annual basis, as determined in accordance with section 812(b)(2).

(f) INDUSTRIAL SOURCES.—

(1) ALLOWANCES.—The Administrator may distribute not more than 15 percent of the allowances allocated under section 782(a) for any vintage year to the owners or operators of eligible industrial sources to support the commercial-scale deployment of carbon capture and sequestration technologies at such sources.

(2) DISTRIBUTION.—The Administrator shall, by regulation, prescribe requirements for the distribution of emission allowances to the owners or operators of industrial sources under this subsection, based on a bonus allowance formula that awards allowances to qualifying projects on the basis of tons of carbon dioxide captured and permanently sequestered. The Administrator may provide for the distribution of emission allowances pursuant to—

(A) a reverse auction method, similar to that described under subsection (d)(3), including the use of separate auctions for different project categories; or

(B) an incentive schedule, similar to that described under subsection (d)(4), which shall ensure that incentives are set so as to satisfy the requirement described in subsection (d)(4)(E).

(3) REVISION OF REGULATIONS.—The Administrator shall review, and as appropriate revise, the applicable regulations under this subsection no less frequently than every 8 years.

(g) LIMITATIONS.—Allowances may be distributed under this section only for tons of carbon dioxide emissions that have already been captured and sequestered. A qualifying project may receive annual emission allowances under this section only for the first 10 years of operation. No greater than 72 gigawatts of total cumulative generating capacity (including industrial applications, measured by such equivalent metric as the Administrator may designate) may receive emission allowances under this section. Upon reaching the limit described in the preceding sentence, any emission allowances that are allocated for carbon capture and sequestration deployment under section 782(f) and are not yet obligated under this section shall be treated as allowances not designated for distribution for purposes of section 782(r).

(h) EXHAUSTION OF ACCOUNT AND ANNUAL ROLL-OVER OF SURPLUS ALLOWANCES.—

(1) In distributing bonus allowances under this subsection, the Administrator shall ensure that qualifying projects receiving allowances receive distributions for 10 years.

(2) If the Administrator determines that the allowances allocated under section 782(f) with a vintage year that matches the year of distribution will be exhausted once the estimated full 10-year distributions will be provided to current eligible participants, the Administrator shall provide to new eligible projects allowances from vintage years after the year of the distribution.

(i) RETROFIT APPLICATIONS.—(1) In calculating bonus allowance values for retrofit applications eligible under subsections (b)(1)(A)(ii) and (b)(1)(A)(iv)(II), the Administrator shall apply the required capture rates with respect to the treated portion of flue gas from the unit.

(2) No additional projects shall be eligible for allowances under subsections (b)(1)(A)(ii) and (b)(1)(A)(iv)(II) as of such time as the Administrator reports, pursuant to section 812(d), that carbon capture and sequestration retrofit projects at electric generating units that are eligible for allowances under this section have been applied, in the aggregate, to the flue gas generated by 1 gigawatt of total cumulative generating capacity.

(j) DAVIS-BACON COMPLIANCE.—All laborers and mechanics employed on projects funded directly by or assisted in whole or in part by this section through the use of bonus allowances shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV, chapter 31, part A of subtitle II of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

SEC. 787. ALLOCATIONS TO REFINERIES.

(a) PURPOSE.—To provide emission allowance rebates to petroleum refiners in the United States in a manner that promotes energy efficiency and a reduction in greenhouse gas emissions at such facilities.

(b) DEFINITIONS.—In this section:

(1) EMISSIONS.—The term "emissions" means the greenhouse gas emissions in the calendar year preceding the calendar year in which emission allowances are being distributed. The term includes direct emissions from fuel combustion, process emissions, and indirect emissions from the generation of electricity used to produce the output of the petroleum refinery or sector.

(2) INTENSITY.—The term "intensity" means tons of carbon dioxide equivalent emissions per unit of output in a given year.

(3) INTENSITY FACTOR.—The term "intensity factor" means the intensity of the petroleum refining sector divided by the intensity for an individual petroleum refinery.

(4) OUTPUT.—The term "output" means the average annual number of gallons of refined fuel produced in the three calendar years preceding the calendar year in which emission allowances are being distributed.

(5) PETROLEUM REFINERY.—The term "petroleum refinery" means a facility classified under 324110 of the North American Industrial Classification System of 2002.

(6) PRODUCTION FACTOR.—The term "production factor" means the output of an individual petroleum refinery divided by the output of the petroleum refining sector.

(c) IN GENERAL.—For each vintage year between 2014 and 2026, the Administrator shall distribute allowances pursuant to this section to owners and operators of petroleum refineries in the United States.

(d) DISTRIBUTION SCHEDULE.—The Administrator shall distribute emission allowances of each vintage year no later than October 31 of the preceding calendar year.

(e) CALCULATION OF EMISSION ALLOWANCE REBATES.—

(1) For each petroleum refinery, the Administrator shall calculate an individual allocation factor for each vintage year, based upon the product of the intensity factor for such refinery multiplied by the production factor for such refinery.

(2) The Administrator shall also calculate a total allocation factor for each vintage year, based upon the sum of all of the individual allocation factors.

(3) The Administrator shall calculate the number of emission allowances to be provided to each petroleum refinery in each vintage year by dividing the individual allocation factor for such refinery by the total allocation factor, then multiplying the result by the number of emission allowances allocated to the program under this section for that vintage year.

(f) DATA SOURCES.—

(1) The Administrator shall use data from the greenhouse gas registry, established under section 713, where it is available.

(2) The Administrator shall determine, by rule, the methodology by which to calculate indirect emissions for a refinery. The Administrator shall also determine, by rule, the methodology by which to take into account the value of allowances provided at no cost to local distribution companies that is passed through to a refinery. Each person selling electricity to the owner or operator of a petroleum refinery shall provide the owner or operator and the Administrator, on an annual basis, such data as the Administrator determines is necessary to implement this section.

SEC. 788. [SECTION RESERVED].

SEC. 789. CLIMATE CHANGE CONSUMER REFUNDS.

(a) REFUND.—In each year after deposits are made to the Climate Change Consumer Refund Account, the Secretary of the Treasury shall provide tax refunds on a per capita basis to each household in the United States that shall collectively equal the amount deposited into the Climate Change Consumer Refund Account.

(b) LIMITATIONS.—The Secretary of the Treasury shall establish procedures to ensure that individuals who are not—

(1) citizens or nationals of the United States; or

(2) immigrants lawfully residing in the United States,

are excluded for the purpose of calculating and distributing refunds under this section.

SEC. 790. EXCHANGE FOR STATE-ISSUED ALLOWANCES.

(a) IN GENERAL.—Not later than one year after the date of enactment of this title, the Administrator shall issue regulations allowing any person in the United States to exchange greenhouse gas emission allowances issued before December 31, 2011, by the State of California or for the Regional Greenhouse Gas Initiative, or the Western Climate Initiative (in this section referred to as "State allowances") for emission allowances established by the Administrator under section 721(a).

(b) REGULATIONS.—Regulations issued under subsection (a) shall—

(1) provide that a person exchanging State allowances under this section receive emission allowances established under section 721(a) in the amount that is sufficient to compensate for the cost of obtaining and holding such State allowances;

(2) establish a deadline by which persons must exchange the State allowances; and

(3) provide that the Federal emission allowances disbursed pursuant to this section shall be deducted from the allowances to be auctioned pursuant to section 782(b).

(c) COST OF OBTAINING STATE ALLOWANCE.—For purposes of this section, the cost of obtaining a State allowance shall be the average auction price, for emission allowances issued in the year in which the State allowance was issued, under the program under which the State allowance was issued.

SEC. 791. AUCTION PROCEDURES.

(a) IN GENERAL.—To the extent that auctions of emission allowances by the Administrator are authorized by this part, such auctions shall be carried out pursuant to this section and the regulations established hereunder.

(b) INITIAL REGULATIONS.—Not later than 12 months after the date of enactment of this title, the Administrator, in consultation with other agencies, as appropriate, shall promulgate regulations governing the auction of allowances under this section. Such regulations shall include the following requirements:

(1) FREQUENCY; FIRST AUCTION.—Auctions shall be held four times per year at regular intervals, with the first auction to be held no later than March 31, 2011.

(2) AUCTION SCHEDULE; CURRENT AND FUTURE VINTAGES.—The Administrator shall, at each quarterly auction under this section, offer for sale both a portion of the allowances with the same vintage year as the year in which the auction is being conducted and a portion of the allowances with vintage years from future years. The preceding sentence shall not apply to auctions held before 2012, during which period, by necessity, the Administrator shall auction only allowances with a vintage year that is later than the year in which the auction is held. Beginning with the first auction and at each quarterly auction held thereafter, the Administrator may offer for sale allowances with vintage years of up to four years after the year in which the auction is being conducted, except as provided in section 782(p).

(3) AUCTION FORMAT.—Auctions shall follow a single-round, sealed-bid, uniform price format.

(4) PARTICIPATION; FINANCIAL ASSURANCE.—Auctions shall be open to any person, except that the Administrator may establish

financial assurance requirements to ensure that auction participants can and will perform on their bids.

(5) DISCLOSURE OF BENEFICIAL OWNERSHIP.—Each bidder in the auction shall be required to disclose the person or entity sponsoring or benefitting from the bidder's participation in the auction if such person or entity is, in whole or in part, other than the bidder.

(6) PURCHASE LIMITS.—No person may, directly or in concert with another participant, purchase more than 5 percent of the allowances offered for sale at any quarterly auction.

(7) PUBLICATION OF INFORMATION.—After the auction, the Administrator shall, in a timely fashion, publish the identities of winning bidders, the quantity of allowances obtained by each winning bidder, and the auction clearing price.

(8) OTHER REQUIREMENTS.—The Administrator may include in the regulations such other requirements or provisions as the Administrator, in consultation with other agencies, as appropriate, considers appropriate to promote effective, efficient, transparent, and fair administration of auctions under this section.

(c) REVISION OF REGULATIONS.—The Administrator may, in consultation with other agencies, as appropriate, at any time, revise the initial regulations promulgated under subsection (b). Such revised regulations need not meet the requirements identified in subsection (b) if the Administrator determines that an alternative auction design would be more effective, taking into account factors including costs of administration, transparency, fairness, and risks of collusion or manipulation. In determining whether and how to revise the initial regulations under this subsection, the Administrator shall not consider maximization of revenues to the Federal Government.

(d) RESERVE AUCTION PRICE.—The minimum reserve auction price shall be $10 (in constant 2009 dollars) for auctions occurring in 2012. The minimum reserve price for auctions occurring in years after 2012 shall be the minimum reserve auction price for the previous year increased by 5 percent plus the rate of inflation (as measured by the Consumer Price Index for all urban consumers).

(e) DELEGATION OR CONTRACT.—Pursuant to regulations under this section, the Administrator may by delegation or contract provide for the conduct of auctions under the Administrator's supervision by other departments or agencies of the Federal Government or by nongovernmental agencies, groups, or organizations.

SEC. 792. AUCTIONING ALLOWANCES FOR OTHER ENTITIES.

(a) CONSIGNMENT.—Any entity holding emission allowances or compensatory allowances may request that the Administrator auction, pursuant to section 791, the allowances on consignment.

(b) PRICING.—When the Administrator acts under this section as the agent of an entity in possession of emission allowances, the Administrator is not obligated to obtain the highest price possible for the emission allowances, and instead shall auction consignment allowances in the same manner and pursuant to the same rules as auctions of other allowances under section 791. The Administrator may permit the entity offering the allowance for sale to condition the sale of its allowances pursuant to this section on a minimum reserve price that is different than the reserve auction price set pursuant to section 791(d).

(c) PROCEEDS.—For emission allowances and compensatory allowances auctioned pursuant to this section, notwithstanding section 3302 of title 31, United States Code, or any other provision of law, within 90 days of receipt, the United States shall transfer the proceeds from the auction to the entity which held the allowances auctioned. No funds transferred from a purchaser to a seller of emission allowances or compensatory allowances under this subsection shall be held by any officer or employee of the United States or treated for any purpose as public monies.

(d) REGULATIONS.—The Administrator shall issue regulations within 24 months after the date of enactment of this title to implement this section.

SEC. 793. ESTABLISHMENT OF FUNDS.

There is established in the Treasury of the United States the following funds:

(1) The Strategic Reserve Fund.

(2) The Climate Change Consumer Refund Fund.

SEC. 794. OVERSIGHT OF ALLOCATIONS.

(a) IN GENERAL.—Not later than January 1, 2014, and every 2 years thereafter, the Comptroller General of the United States shall carry out a review of programs administered by the Federal Government that distribute emission allowances or funds from any Federal auction of allowances.

(b) CONTENTS.—Each such report shall include a comprehensive evaluation of the administration and effectiveness of each program, including—

(1) the efficiency, transparency, and soundness of the administration of each program;

(2) the performance of activities receiving assistance under each program;

(3) the cost-effectiveness of each program in achieving the stated purposes of the program; and

(4) recommendations, if any, for regulatory or administrative changes to each program to improve its effectiveness.

(c) FOCUS.—In evaluating program performance, each review under this section review shall address the effectiveness of such programs in—

(1) creating and preserving jobs;

(2) ensuring a manageable transition for working families and workers;

(3) reducing the emissions, or enhancing sequestration, of greenhouse gases;

(4) developing clean technologies; and

(5) building resilience to the impacts of climate change.

TITLE VIII—ADDITIONAL GREENHOUSE GAS STANDARDS

SEC. 801. DEFINITIONS.

For purposes of this title, terms that are defined in title VII, except for the term "stationary source", shall have the meaning given those terms in title VII.

PART A—STATIONARY SOURCE STANDARDS

SEC. 811. STANDARDS OF PERFORMANCE.

(a) UNCAPPED STATIONARY SOURCES.—

(1) INVENTORY OF SOURCE CATEGORIES.—(A) Within 12 months after the date of enactment of this title, the Administrator shall publish under section 111(b)(1)(A) an inventory of categories of stationary sources that consist of those categories that contain sources that individually had uncapped greenhouse gas emissions greater than 10,000 tons of carbon dioxide equivalent and that, in the aggregate, were responsible for emitting at least 20 percent annually of the uncapped greenhouse gas emissions.

(B) The Administrator shall include in the inventory under this paragraph each source category that is responsible for at least 10 percent of the uncapped methane emissions in 2005. Notwithstanding any other provision, the inventory required by this section shall not include sources of enteric fermentation. The list under this paragraph shall include industrial sources, the emissions from which, when added to the capped emissions from industrial sources, constitute at least 95 percent of the greenhouse gas emissions of the industrial sector.

(C) For purposes of this subsection, emissions shall be calculated using tons of carbon dioxide equivalents. In promulgating the inventory required by this paragraph and the schedule required under by paragraph (2)(C), the Administrator shall use the most current emissions data available at the time of promulgation, except as provided in subparagraph (B).

(D) Notwithstanding any other provisions, the Administrator may list under 111(b) any source category identified in the inventory required by this subsection without making a finding that the source category causes or contributes significantly to, air pollution with may be reasonably anticipated to endanger public health or welfare.

(2) STANDARDS AND SCHEDULE.—(A) For each category identified as provided in paragraph (1), the Administrator shall promulgate standards of performance under section 111 for the uncapped emissions of greenhouse gases from stationary sources in that category and shall promulgate corresponding regulations under section 111(d).

(B) The Administrator shall promulgate standards as required by this subsection for stationary sources in categories identified as provided in paragraph (1) as expeditiously as practicable, assuring that—

(i) standards for identified source categories that, combined, emitted 80 percent or more of the greenhouse gas emissions of the identified source categories shall be promulgated not later than 3 years after the date of enactment of this title and shall include standards for natural gas extraction; and

(ii) for all other identified source categories—

(I) standards for not less than an additional 25 percent of the identified categories shall be promulgated not later than 5 years after the date of enactment of this title;

(II) standards for not less than an additional 25 percent of the identified categories shall be promulgated not later than 7 years after the date of enactment of this title; and

(III) standards for all the identified categories shall be promulgated not later than 10 years after the date of enactment of this title.

(C) Not later than 24 months after the date of enactment of this title and after notice and opportunity for comment, the Administrator shall publish a schedule establishing a date for the promulgation of standards for each category of sources identified pursuant to paragraph (1). The date for each category shall be consistent with the requirements of subparagraph (B). The determination of priorities for the promulgation of standards pursuant to this paragraph is not a rulemaking and shall not be subject to judicial review, except that failure to promulgate any standard pursuant to the schedule established by this paragraph shall be subject to review under section 304(a)(2).

(D) Notwithstanding section 307, no action of the Administrator listing a source category under paragraph (1) shall be a final agency action subject to judicial review, except that any such action may be reviewed under section 307 when the Administrator issues performance standards for such category.

(b) CAPPED SOURCES.—No standard of performance shall be established under section 111 for capped greenhouse gas emissions from a capped source unless the Administrator determines that such standards are appropriate because of effects that do not include climate change effects. In promulgating a standard of performance under section 111 for the emission from capped sources of any air pollutant that is not a greenhouse gas, the Administrator shall treat the emission of any greenhouse gas by those entities as a nonair quality public health and environmental impact within the meaning of section 111(a)(1).

(c) PERFORMANCE STANDARDS.—For purposes of setting a performance standard for source categories identified pursuant to subsection (a)—

(1) The Administrator shall take into account the goal of reducing total United States greenhouse gas emissions as set forth in section 702.

(2) The Administrator may promulgate a design, equipment, work practice, or operational standard, or any combination thereof, under section 111 in lieu of a standard of performance under that section without regard to any determination of feasibility that would otherwise be required under section 111(h).

(3) Notwithstanding any other provision, in setting the level of each standard required by this section, the Administrator shall take into account projections of allowance prices, such that the marginal cost of compliance (expressed as dollars per ton of carbon dioxide equivalent reduced) imposed by the standard would not, in the judgement of the Administrator, be expected to exceed the Administrator's projected allowance prices over the time period spanning from the date of initial compliance to the date that the next revisions of the standard would come into effect pursuant to the schedule under section 111(b)(1)(B).

(d) DEFINITIONS.—In this section, the terms "uncapped greenhouse gas emissions" and "uncapped methane emissions" mean those greenhouse gas or methane emissions, respectively, to which section 722 would not have applied if the requirements of this title had been in effect for the same year as the emissions data upon which the list is based.

(e) STUDY OF THE EFFECTS OF PERFORMANCE STANDARDS.—

(1) STUDY.—The Administrator shall conduct a study of the impacts of performance standards required under this section, which shall evaluate the effect of such standards on the—

(A) costs of achieving compliance with the economy-wide reduction goals specified in section 702 and the reduction targets specified in section 703;

(B) available supply of offset credits; and

(C) ability to achieve the economy-wide reduction goals specified in section 702 and any other benefits of such standards.

(2) REPORT.—The Administrator shall submit to the House Energy and Commerce Committee a report that describes the results of the study not later than 18 months after the publication of the standards required under subsection (a)(2)(B)(i).

SEC. 812. PERFORMANCE STANDARDS FOR NEW COAL-FIRED POWER PLANTS.

(a) DEFINITIONS.—For purposes of this section:

(1) COVERED EGU.—The term "covered EGU" means a utility unit that is required to have a permit under section 503(a) and is authorized under state or federal law to derive at least 30 percent of its annual heat input from coal, petroleum coke, or any combination of these fuels.

(2) INITIALLY PERMITTED.—The term "initially permitted" means that the owner or operator has received a Clean Air Act preconstruction approval or permit, for the covered EGU as a new (not a modified) source, but administrative review or appeal of such approval or permit has not been exhausted. A subsequent modification of any such approval or permits, ongoing administrative or court review, appeals, or challenges, or the existence or tolling of any time to pursue further review, appeals, or challenges shall not affect the date on which a covered EGU is considered to be initially permitted under this paragraph.

(b) STANDARDS.—(1) A covered EGU that is initially permitted on or after January 1, 2020, shall achieve an emission limit that is a 65 percent reduction in emissions of the carbon dioxide produced by the unit, as measured on an annual basis, or meet such more stringent standard as the Administrator may establish pursuant to subsection (c).

(2) A covered EGU that is initially permitted after January 1, 2009, and before January 1, 2020, shall, by the applicable compliance date established under this paragraph, achieve an emission limit that is a 50 percent reduction in emissions of the carbon dioxide produced by the unit, as measured on an annual basis. Compliance with the requirement set forth in this paragraph shall be required by the earliest of the following:

(A) Four years after the date the Administrator has published pursuant to subsection (d) a report that there are in commercial operation in the United States electric generating units or other

stationary sources equipped with carbon capture and sequestration technology that, in the aggregate—

(i) have a total of at least 4 gigawatts of nameplate generating capacity of which—

(I) at least 3 gigawatts must be electric generating units; and

(II) up to 1 gigawatt may be industrial applications, for which capture and sequestration of 3 million tons of carbon dioxide per year on an aggregate annualized basis shall be considered equivalent to 1 gigawatt;

(ii) include at least 2 electric generating units, each with a nameplate generating capacity of 250 megawatts or greater, that capture, inject, and sequester carbon dioxide into geologic formations other than oil and gas fields; and

(iii) are capturing and sequestering in the aggregate at least 12 million tons of carbon dioxide per year, calculated on an aggregate annualized basis.

(B) January 1, 2025.

(3) If the deadline for compliance with paragraph (2) is January 1, 2025, the Administrator may extend the deadline for compliance by a covered EGU by up to 18 months if the Administrator makes a determination, based on a showing by the owner or operator of the unit, that it will be technically infeasible for the unit to meet the standard by the deadline. The owner or operator must submit a request for such an extension by no later than January 1, 2022, and the Administrator shall provide for public notice and comment on the extension request.

(c) REVIEW AND REVISION OF STANDARDS.—Not later than 2025 and at 5-year intervals thereafter, the Administrator shall review the standards for new covered EGUs under this section and shall, by rule, reduce the maximum carbon dioxide emission rate for new covered EGUs to a rate which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(d) REPORTS.—Not later than the date 18 months after the date of enactment of this title and semiannually thereafter, the Administrator shall publish a report on the nameplate capacity of units (determined pursuant to subsection (b)(2)(A)) in commercial operation in the United States equipped with carbon capture and sequestration technology, including the information described in subsection (b)(2)(A) (including the cumulative generating capacity to which carbon capture and sequestration retrofit projects meeting the criteria described in section 786(b)(1)(A)(ii) and (b)(1)(A)(iv)(II) has been applied and the quantities of carbon dioxide captured and sequestered by such projects).

(e) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator shall promulgate regulations to carry out the requirements of this section.

SEC. 813. GEOLOGIC SEQUESTRATION SITES.

(a) COORDINATED PROCESS.—The Administrator shall establish a coordinated approach to certifying and permitting geologic seques-

tration, taking into consideration all relevant statutory authorities. In establishing such approach, the Administrator shall—

(1) take into account, and reduce redundancy with, the requirements of section 1421 of the Safe Drinking Water Act (42 U.S.C. 300h), as amended by section 112(b) of the American Clean Energy and Security Act of 2009, including the rulemaking for geologic sequestration wells described at 73 Fed. Reg. 43491-541 (July 25, 2008); and

(2) to the extent practicable, reduce the burden on certified entities and implementing authorities.

(b) REGULATIONS.—Not later than 2 years after the date of enactment of this title, the Administrator shall promulgate regulations to protect human health and the environment by minimizing the risk of escape to the atmosphere of carbon dioxide injected for purposes of geologic sequestration.

(c) REQUIREMENTS.—The regulations under subsection (b) shall include—

(1) a process to obtain certification for geologic sequestration under this section; and

(2) requirements for—

(A) monitoring, record keeping, and reporting for emissions associated with injection into, and escape from, geologic sequestration sites, taking into account any requirements or protocols developed under section 713;

(B) public participation in the certification process that maximizes transparency;

(C) the sharing of data between States, Indian tribes, and the Environmental Protection Agency; and

(D) other elements or safeguards necessary to achieve the purpose set forth in subsection (b).

(d) REPORT.—Not later than 2 years after the promulgation of regulations under subsection (b), and at 3-year intervals thereafter, the Administrator shall deliver to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on geologic sequestration in the United States, and, to the extent relevant, other countries in North America. Such report shall include—

(1) data regarding injection, emissions to the atmosphere, if any, and performance of active and closed geologic sequestration sites, including those where enhanced hydrocarbon recovery operations occur;

(2) an evaluation of the performance of relevant Federal environmental regulations and programs in ensuring environmentally protective geologic sequestration practices;

(3) recommendations on how such programs and regulations should be improved or made more effective; and

(4) other relevant information.

PART B—MOBILE SOURCES

SEC. 821. GREENHOUSE GAS EMISSION STANDARDS FOR MOBILE SOURCES.

(a) NEW MOTOR VEHICLES AND NEW MOTOR VEHICLE ENGINES.—(1) Pursuant to section 202(a)(1), by December 31, 2010, the Administrator shall promulgate standards applicable to emissions of

greenhouse gases from new heavy-duty motor vehicles or new heavy-duty motor vehicle engines, excluding such motor vehicles covered by the Tier II standards (as established by the Administrator as of the date of the enactment of this section). The Administrator may revise these standards from time to time.

(2) Regulations issued under section 202(a)(1) applicable to emissions of greenhouse gases from new heavy-duty motor vehicles or new heavy-duty motor vehicle engines, excluding such motor vehicles covered by the Tier II standards (as established by the Administrator as of the date of the enactment of this section), shall contain standards that reflect the greatest degree of emissions reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology. Any such regulations shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, and, at a minimum, shall apply for a period no less than 3 model years beginning no earlier than the model year commencing 4 years after such regulations are promulgated.

(3) Regulations issued under section 202(a)(1) applicable to emissions of greenhouse gases from new heavy-duty motor vehicles or new heavy-duty motor vehicle engines, excluding such motor vehicles covered by the Tier II standards (as established by the Administrator as of the date of the enactment of this section), shall supersede and satisfy any and all of the rulemaking and compliance requirements of section 32902(k) of title 49, United States Code.

(4) Other than as specifically set forth in paragraph (3) of this subsection, nothing in this section shall affect or otherwise increase or diminish the authority of the Secretary of Transportation to adopt regulations to improve the overall fuel efficiency of the commercial goods movement system.

(b) NONROAD VEHICLES AND ENGINES.—(1) Pursuant to section 213(a)(4) and (5), the Administrator shall identify those classes or categories of new nonroad vehicles or engines, or combinations of such classes or categories, that, in the judgment of the Administrator, both contribute significantly to the total emissions of greenhouse gases from nonroad engines and vehicles, and provide the greatest potential for significant and cost-effective reductions in emissions of greenhouse gases. The Administrator shall promulgate standards applicable to emissions of greenhouse gases from these new nonroad engines or vehicles by December 31, 2012. The Administrator shall also promulgate standards applicable to emissions of greenhouse gases for such other classes and categories of new nonroad vehicles and engines as the Administrator determines appropriate and in the timeframe the Administrator determines appropriate. The Administrator shall base such determination, among other factors, on the relative contribution of greenhouse gas emissions, and the costs for achieving reductions, from such classes or categories of new nonroad engines and vehicles. The Administrator may revise these standards from time to time.

(2) Standards under section 213(a)(4) and (5) applicable to emissions of greenhouse gases from those classes or categories of new nonroad engines or vehicles identified in the first sentence of para-

graph (1) of this subsection, shall achieve the greatest degree of emissions reduction achievable based on the application of technology which the Administrator determines will be available at the time such standards take effect, taking into consideration cost, energy, and safety factors associated with the application of such technology. Any such regulations shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology.

(3) For purposes of this section and standards under section 213(a)(4) or (5) applicable to emissions of greenhouse gases, the term "nonroad engines and vehicles" shall include non-internal combustion engines and the vehicles these engines power (such as electric engines and electric vehicles), for those non-internal combustion engines and vehicles which would be in the same category and have the same uses as nonroad engines and vehicles that are powered by internal combustion engines.

(c) AIRCRAFT AND AIRCRAFT ENGINES.—

(1) Pursuant to section 231(a), the Administrator shall promulgate standards applicable to emissions of greenhouse gases from new aircraft and new engines used in aircraft by December 31, 2012. Notwithstanding any requirement in section 231(a), the Administrator, in consultation with the Administrator of the Federal Aviation Administration, shall also promulgate standards applicable to emissions of greenhouse gases from other classes and categories of aircraft and aircraft engines for such classes and categories as the Administrator determines appropriate and in the timeframe the Administrator determines appropriate. The Administrator may revise these standards from time to time.

(2) Standards under section 231(a) applicable to emissions of greenhouse gases from new aircraft and new engines used in aircraft, and any later revisions or additional standards, shall achieve the greatest degree of emissions reduction achievable based on the application of technology which the Administrator determines will be available at the time such standards take effect, taking into consideration cost, energy, and safety factors associated with the application of such technology. Any such standards shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology.

(d) AVERAGING, BANKING, AND TRADING OF EMISSIONS CREDITS.—In establishing standards applicable to emissions of greenhouse gases pursuant to this section and sections 202(a), 213(a)(4) and (5), and 231(a), the Administrator may establish provisions for averaging, banking, and trading of greenhouse gas emissions credits within or across classes or categories of motor vehicles and motor vehicle engines, nonroad vehicles and engines (including marine vessels), and aircraft and aircraft engines, to the extent the Administrator determines appropriate and considering the factors appropriate in setting standards under those sections. Such provisions may include reasonable and appropriate provisions concerning generation, banking, trading, duration, and use of credits.

(e) REPORTS.—The Administrator shall, from time to time, submit a report to Congress that projects the amount of greenhouse gas emissions from the transportation sector, including transportation

fuels, for the years 2030 and 2050, based on the standards adopted under this section.

(f) GREENHOUSE GASES.—Notwithstanding the provisions of section 711, hydrofluorocarbons shall be considered a greenhouse gas for purposes of this section.

SEC. 822. SMARTWAY TRANSPORTATION EFFICIENCY PROGRAM.

(a) IN GENERAL.—There is established within the Environmental Protection Agency a SmartWay Transport Program to quantify, demonstrate, and promote the benefits of technologies, products, fuels, and operational strategies that reduce petroleum consumption, air pollution, and greenhouse gas emissions from the mobile source sector.

(b) GENERAL DUTIES.—Under the program established under this section, the Administrator shall carry out each of the following:

(1) Development of measurement protocols to evaluate the energy consumption and greenhouse gas impacts from technologies and strategies in the mobile source sector, including those for passenger transport and goods movement.

(2) Development of qualifying thresholds for certifying, verifying, or designating energy-efficient, low-greenhouse gas SmartWay technologies and strategies for each mode of passenger transportation and goods movement.

(3) Development of partnership and recognition programs to promote best practices and drive demand for energy-efficient, low-greenhouse gas transportation performance.

(4) Promotion of the availability of, and encouragement of the adoption of, SmartWay certified or verified technologies and strategies, and publication of the availability of financial incentives, such as assistance from loan programs and other Federal and State incentives.

(c) SMARTWAY TRANSPORT FREIGHT PARTNERSHIP.—The Administrator shall establish a SmartWay Transport Partnership program with shippers and carriers of goods to promote energy-efficient, low-greenhouse gas transportation. In carrying out such partnership, the Administrator shall undertake each of the following:

(1) Certification of the energy and greenhouse gas performance of participating freight carriers, including those operating rail, trucking, marine, and other goods movement operations.

(2) Publication of a comprehensive energy and greenhouse gas performance index of freight modes (including rail, trucking, marine, and other modes of transporting goods) and individual freight companies so that shippers can choose to deliver their goods more efficiently.

(3) Development of tools for—

(A) carriers to calculate their energy and greenhouse gas performance; and

(B) shippers to calculate the energy and greenhouse gas impacts of moving their products and to evaluate the relative impacts from transporting their goods by different modes and corporate carriers.

(4) Provision of recognition opportunities for participating shipper and carrier companies demonstrating advanced practices and achieving superior levels of greenhouse gas performance.

(d) IMPROVING FREIGHT GREENHOUSE GAS PERFORMANCE DATABASES.—The Administrator shall, in coordination with other appropriate agencies, define and collect data on the physical and operational characteristics of the Nation's truck population, with special emphasis on data related to energy efficiency and greenhouse gas performance to inform the performance index published under subsection (c)(2) of this section, and other means of goods transport as necessary, at least every 5 years.

(e) ESTABLISHMENT OF FINANCING PROGRAM.—The Administrator shall establish a SmartWay Financing Program to competitively award funding to eligible entities identified by the Administrator in accordance with the program requirements in subsection (g).

(f) PURPOSE.—Under the SmartWay Financing Program, eligible entities shall—

(1) use funds awarded by the Administrator to provide flexible loan and lease terms that increase approval rates or lower the costs of loans and leases in accordance with guidance developed by the Administrator; and

(2) make such loans and leases available to public and private entities for the purpose of adopting low-greenhouse gas technologies or strategies for the mobile source sector that are designated by the Administrator.

(g) PROGRAM REQUIREMENTS.—The Administrator shall determine program design elements and requirements, including—

(1) the type of financial mechanism with which to award funding, in the form of grants or contracts;

(2) the designation of eligible entities to receive funding, including State, tribal, and local governments, regional organizations comprised of governmental units, nonprofit organizations, or for-profit companies;

(3) criteria for evaluating applications from eligible entities, including anticipated—

(A) cost-effectiveness of loan or lease program on a metric-ton-of-greenhouse gas-saved-per-dollar basis;

(B) ability to promote the loan or lease program and associated technologies and strategies to the target audience; and

(4) reporting requirements for entities that receive awards, including—

(A) actual cost-effectiveness and greenhouse gas savings from the loan or lease program based on a methodology designated by the Administrator;

(B) the total number of applications and number of approved applications; and

(C) terms granted to loan and lease recipients compared to prevailing market practices.

(h) AUTHORIZATION OF APPROPRIATIONS.—Such sums as necessary are authorized to be appropriated to the Administrator to carry out this section.

PART C—EXEMPTIONS FROM OTHER PROGRAMS

SEC. 831. CRITERIA POLLUTANTS.

As of the date of the enactment of the Safe Climate Act, no greenhouse gas may be added to the list under section 108(a) on the basis of its effect on global climate change.

SEC. 832. INTERNATIONAL AIR POLLUTION.

Section 115 shall not apply to an air pollutant with respect to that pollutant's contribution to global warming.

SEC. 833. HAZARDOUS AIR POLLUTANTS.

No greenhouse gas may be added to the list of hazardous air pollutants under section 112 unless such greenhouse gas meets the listing criteria of section 112(b) independent of its effects on global climate change.

SEC. 834. NEW SOURCE REVIEW.

The provisions of part C of title I shall not apply to a major emitting facility that is initially permitted or modified after January 1, 2009, on the basis of its emissions of any greenhouse gas.

SEC. 835. TITLE V PERMITS.

Notwithstanding any provision of title III or V, no stationary source shall be required to apply for, or operate pursuant to, a permit under title V, solely because the source emits any greenhouse gases that are regulated solely because of their effect on global climate change.

PART D—PLANNING REQUIREMENTS

SEC. 841. GREENHOUSE GAS EMISSIONS REDUCTIONS THROUGH TRANSPORTATION EFFICIENCY.

(a) IN GENERAL.—Each State shall—

(1) not later than 3 years after the date of enactment of this section, submit to the Administrator goals for transportation-related greenhouse gas emissions reductions, which goals shall be reasonably commensurate with the targets for overall greenhouse gas emissions reduction established by this Act; and

(2) as part of each transportation plan or transportation improvement program developed under title 23 or title 49, United States Code, ensure that a plan to achieve such goals, or an updated version of such a plan, is submitted to the Administrator and to the Secretary of Transportation (in this section referred to as the "Secretary") by each metropolitan planning organization in the State for an area with a population exceeding 200,000.

(b) MODELS AND METHODOLOGIES.—

(1) IN GENERAL.—The Administrator shall promulgate regulations to establish standards for use in developing goals, plans, and strategies under this section and for monitoring progress toward such goals. Such standards shall include—

(A) data collection techniques for assessing State and regional transportation-related greenhouse gas emissions;

(B) methodologies for determining transportation-related greenhouse gas emissions baselines;

(C) models and methodologies for scenario analysis; and

(D) models and methodologies for estimating transportation-related greenhouse gas emissions reductions from the strategies considered under this section.

Such regulations may approve or improve existing models and methodologies

(2) TIMING.—The Administrator shall—

(A) publish proposed regulations under paragraph (1) not later than 1 year after the date of enactment of this section; and

(B) promulgate final regulations under paragraph (1) not later than 2 years after such date of enactment.

(3) ASSESSMENT.—At least every 6 years after promulgating final regulations under paragraph (1), the Administrator, in coordination with the Secretary, shall assess current and projected progress in reducing transportation-related greenhouse gas emissions. The assessment shall examine the contributions to emissions reductions attributable to improvements in vehicle efficiency, greenhouse gas performance of transportation fuels, and increased efficiency in utilizing transportation systems.

(c) GREENHOUSE GAS REDUCTION GOALS.—

(1) CONSULTATION.—Each State shall develop the goals referred to in subsection (a)(1)—

(A) in concurrence with State agencies responsible for air quality and transportation;

(B) in consultation with each metropolitan planning organization for an area in the State with a population exceeding 200,000 and applicable local air quality and transportation agencies; and

(C) with public involvement, including public comment periods and meetings.

(2) PERIOD.—The goals referred to in subsection (a)(1) shall be for 4-, 10-, and 20-year periods.

(3) TARGETS; DESIGNATED YEAR.—The goals referred to in subsection (a)(1) shall establish targets to reduce transportation-related greenhouse gas emissions in the covered area. The targets shall be designed to ensure that the levels of such emissions stabilize and decrease after a designated year. The State shall consider designating 2010 as such designated year.

(4) COVERED AREA.—The goals referred to in subsection (a)(1)—

(A) shall be established on a statewide basis;

(B) shall be established for each metropolitan planning organization in the State for an area with a population exceeding 200,000; and

(C) may be established on a voluntary basis, in accordance with the provisions of this section, for any metropolitan planning organization not described in subparagraph (B).

(5) REVISED GOALS.—Every 4 years, each State shall update and revise, as appropriate, the goals referred to in subsection (a)(1).

(d) PLANNING.—A plan submitted under subsection (a)(2) shall—

(1) be based upon the models and methodologies established by the Administrator under subsection (b);

(2) use transportation and land use scenario analysis to address transportation-related greenhouse gas emissions and economic development impacts; and

(3) be developed—

(A) with public involvement, including public comment periods and meetings that provide opportunities for comment from a variety of stakeholders based on age, race, income, and disability;

(B) with regional coordination, including with respect to—

(i) metropolitan planning organizations;

(ii) the localities comprising the metropolitan planning organization;

(iii) the State in which the metropolitan planning organization is located; and

(iv) air quality, environmental health, and transportation agencies for the State and region involved; and

(C) in consultation with the State and local housing, public health, economic development, land use, environment, and public transportation agencies.

(e) STRATEGIES.—In developing goals under subsection (a)(1) and a plan under subsection (a)(2), the State or metropolitan planning organization, as applicable, shall consider transportation and land use planning strategies to reduce transportation-related greenhouse gas emissions, including the following:

(1) Efforts to increase or improve public transportation, including—

(A) new public transportation systems, including new commuter rail systems;

(B) expansion of existing public transportation systems;

(C) employer-based subsidies;

(D) cleaner locomotive technologies;

(E) quality of service improvements, including improved frequency of service; and

(F) use of transit buses that are powered by alternative fuels.

(2) Updates to zoning and other land use regulations and plans to support development that—

(A) coordinates transportation and land use planning;

(B) focuses future growth close to existing and planned job centers and public facilities;

(C) uses existing infrastructure;

(D) promotes walking, bicycling, and public transportation use; and

(E) mixes land uses such as housing, retail, and schools.

(3) Implementation of a policy (referred to as a "complete streets policy") that—

(A) ensures adequate accommodation of all users of transportation systems, including pedestrians, bicyclists, public transportation users, motorists, children, the elderly, and individuals with disabilities; and

(B) adequately addresses the safety and convenience of all users of the transportation system.

(4) Construction of bicycle and pedestrian infrastructure facilities, including facilities that improve the connections with

networks that provide access to human services, employment, schools, and retail.

(5) Projects to promote telecommuting, flexible work schedules, or satellite work centers.

(6) Pricing measures, including tolling, congestion pricing, and pay-as-you-drive insurance.

(7) Intermodal freight system strategies, including enhanced rail services, short sea shipping, and other strategies.

(8) Parking policies.

(9) Intercity rail service, including high speed rail.

(10) Travel demand management projects.

(11) Restriction of the use of certain roads, or lanes, by vehicles other than passenger buses and high-occupancy vehicles.

(12) Reduction of vehicle idling, including idling associated with freight management, construction, transportation, and commuter operations.

(13) Policies to encourage the use of retrofit technologies and early replacement of vehicles, engines and equipment to reduce transportation-related greenhouse gas emissions from existing mobile sources.

(14) Other projects that the Administrator finds reduce transportation-related greenhouse gas emissions.

(f) PUBLIC AVAILABILITY.—The Administrator shall publish, including by posting on the Environmental Protection Agency's website—

(1) the goals and plans submitted under subsection (a); and

(2) for each plan submitted under subsection (a)(2), an analysis of the anticipated effects of the plan on greenhouse gas emissions and oil consumption.

(g) CERTIFICATION.—The Administrator, in consultation with the Secretary, shall certify a State or metropolitan planning organization greenhouse gas reduction plan submitted under subsection (a)(2) if the plan's implementation is likely to meet the corresponding greenhouse gas reduction goal referred to in subsection (a)(1). If the Administrator, in consultation with the Secretary, determines that a submitted plan cannot be certified, the State or metropolitan planning organization shall revise and resubmit the plan within 1 year.

(h) ENFORCEMENT.—If the Administrator finds that a State has failed to submit goals under subsection (a)(1), has failed to ensure the submission of a plan under subsection (a)(2), or has failed to submit a revised plan under subsection (g), for any area in the State (irrespective of whether the area is a nonattainment area), the Administrator shall impose a prohibition in accordance with section 179(b)(1) applicable to the area within 2 years of such a finding. The Administrator may not impose a prohibition under the preceding sentence, and no action may be brought by the Administrator or any other entity alleging a violation of this section, based on the content or adequacy of a goal or plan submitted under subsection (a)(1) or (a)(2) or failure to achieve the goal submitted under subsection (a)(1).

(i) COMPETITIVE GRANTS.—

(1) GRANTS.—The Administrator, in consultation with the Secretary, may award grants to States or metropolitan planning organizations—

(A) to support activities related to improving data collection, modeling, and monitoring systems to assess transportation-related greenhouse gas emissions and the effects of plans, policies, and strategies referenced in this section;

(B) for the development of goals and plans to be submitted under sections (a)(1) or (a)(2); and

(C) to implement plans certified under subsection (g) or elements thereof, provided that each project thus funded includes a measurement and evaluation component that meets the regulations promulgated under subsection (b).

(2) PRIORITY.—In making grants under paragraph (1)(C), the Administrator shall give priority to applicants based upon—

(A) the amount of total greenhouse gas emissions to be reduced as a result of implementation of a certified plan, within the covered area, as determined by methods established under subsection (b);

(B) the amount of per capita greenhouse gas emissions to be reduced as a result of implementation of a certified plan, within the covered area, as determined by methods established under subsection (b);

(C) the cost effectiveness, in terms of dollars per tons of greenhouse gas reductions, to be achieved as a result of the implementation of a certified plan;

(D) the potential for both short- and long-term reductions; and

(E) such other factors as the Administrator determines appropriate.

(3) AUTHORIZATION OF APPROPRIATIONS.—To carry out this subsection, there are authorized to be appropriated such sums as may be necessary.

(j) DEFINITIONS.—In this section:

(1) The term "metropolitan planning organization" means a metropolitan planning organization, as such term is used in section 176.

(2) The term "scenario analysis" means an analysis that is conducted by identifying different trends and making projections based on those trends to develop a range of scenarios and estimates of how each scenario could improve access to goods and services, including access to employment, education, and health care (especially for elderly and economically disadvantaged communities), and could affect rates of—

(A) vehicle miles traveled;

(B) vehicle hours traveled;

(C) use of mobile source fuel by type, including electricity; and

(D) transportation-related greenhouse gas emissions.

(k) LAND USE AUTHORITY.—Nothing in this section may be construed to—

(1) infringe upon the existing authority of State or local governments to plan or control land use; or

(2) provide or transfer authority over land use to any other entity.

PART E—BLACK CARBON

SEC. 851. BLACK CARBON.

(a) DOMESTIC BLACK CARBON MITIGATION.—Not later than 18 months after the date of enactment of this section, the Administrator, taking into consideration the public health and environmental impacts of black carbon emissions, including the effects on global and regional warming, the Arctic, and other snow and ice-covered surfaces, shall propose regulations under the existing authorities of this Act to reduce emissions of black carbon or propose a finding that existing regulations promulgated pursuant to this Act adequately regulate black carbon emissions. Not later than two years after the date of enactment of this section, the Administrator shall promulgate final regulations under the existing authorities of this Act or finalize the proposed finding.

(b) INTERNATIONAL BLACK CARBON MITIGATION.—

(1) REPORT.—Not later than one year after the date of enactment of this section, the Administrator, in coordination with the Secretary of State and other appropriate Federal agencies, shall transmit a report to Congress on the amount, type, and direction of all present United States financial, technical, and related assistance to foreign countries to reduce, mitigate, and otherwise abate black carbon emissions.

(2) OTHER OPPORTUNITIES.—The report required under paragraph (1) shall also identify opportunities and recommendations, including action under existing authorities, to achieve significant black carbon emission reductions in foreign countries through technical assistance or other approaches to—

(A) promote sustainable solutions to bring clean, efficient, safe, and affordable stoves, fuels, or both stoves and fuels to residents of developing countries that are reliant on solid fuels such as wood, dung, charcoal, coal, or crop residues for home cooking and heating, so as to help reduce the public health, environmental, and economic impacts of black carbon emissions from these sources by—

(i) identifying key regions for large-scale demonstration efforts, and key partners in each such region; and

(ii) developing for each such region a large-scale implementation strategy with a goal of collectively reaching 20,000,000 homes over 5 years with interventions that will—

(I) increase stove efficiency by over 50 percent (or such other goal as determined by the Administrator);

(II) reduce emissions of black carbon by over 60 percent (or such other goal as determined by the Administrator); and

(III) reduce the incidence of severe pneumonia in children under 5 years old by over 30 percent (or such other goal as determined by the Administrator);

(B) make technological improvements to diesel engines and provide greater access to fuels that emit less or no black carbon;

(C) reduce unnecessary agricultural or other biomass burning where feasible alternatives exist;

(D) reduce unnecessary fossil fuel burning that produces black carbon where feasible alternatives exist;

(E) reduce other sources of black carbon emissions; and

(F) improve capacity to achieve greater compliance with existing laws to address black carbon emissions.

PART F—MISCELLANEOUS

SEC. 861. STATE PROGRAMS.

Notwithstanding section 116, no State or political subdivision thereof shall implement or enforce a cap and trade program that covers any capped emissions emitted during the years 2012 through 2017. For purposes of this section, the term "cap and trade program" means a system of greenhouse gas regulation under which a State or political subdivision issues a limited number of tradable instruments in the nature of emission allowances and requires that sources within its jurisdiction surrender such tradeable instruments for each unit of greenhouse gases emitted during a compliance period. For purposes of this section, a "cap-and-trade program" does not include a target or limit on greenhouse gas emissions adopted by a State or political subdivision that is implemented other than through the issuance and surrender of a limited number of tradable instruments in the nature of emission allowances, nor does it include any other standard, limit, regulation, or program to reduce greenhouse gas emissions that is not implemented through the issuance and surrender of a limited number of tradeable instruments in the nature of emission allowances. For purposes of this section, the term "cap and trade program" does not include, among other things, fleet-wide motor vehicle emission requirements that allow greater emissions with increased vehicle production, or requirements that fuels, or other products, meet an average pollution emission rate or lifecycle greenhouse gas standard.

SEC. 862. GRANTS FOR SUPPORT OF AIR POLLUTION CONTROL PROGRAMS.

The Administrator is authorized to make grants to air pollution control agencies pursuant to section 105 for purposes of assisting in the implementation of programs to address global warming established under the Safe Climate Act.

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SAFE DRINKING WATER ACT

TITLE XIV—SAFETY OF PUBLIC WATER SYSTEMS

* * * * * * *

PART C—PROTECTION OF UNDERGROUND SOURCES OF DRINKING WATER

REGULATIONS FOR STATE PROGRAMS

SEC. 1421. (a) * * *

* * * * * * *

(e) CARBON DIOXIDE GEOLOGIC SEQUESTRATION WELLS.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this subsection, the Administrator shall promulgate regulations under subsection (a) for carbon dioxide geologic sequestration wells.

(2) FINANCIAL RESPONSIBILITY.—The regulations referred to in paragraph (1) shall include requirements for maintaining evidence of financial responsibility, including financial responsibility for emergency and remedial response, well plugging, site closure, and post-injection site care. Financial responsibility may be established for carbon dioxide geologic sequestration wells in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, trust, standby trust, surety bond, letter of credit, qualification as a self-insurer, or any other method satisfactory to the Administrator.

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ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

TITLE I—ENERGY SECURITY THROUGH IMPROVED VEHICLE FUEL ECONOMY

* * * * * * *

Subtitle B—Improved Vehicle Technology

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SEC. 136. ADVANCED TECHNOLOGY VEHICLES MANUFACTURING INCENTIVE PROGRAM.

(a) * * *

* * * * * * *

(d) DIRECT LOAN PROGRAM.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, and subject to the availability of appropriated funds, the Secretary shall carry out a program to provide a total of not more than [$25,000,000,000] *$50,000,000,000* in loans to eligible individuals and entities (as determined by the Secretary) for the costs of activities described in subsection (b). The loans shall be made through the Federal Financing Bank, with the full faith and credit of the United States Government on the principal and interest. The

full credit subsidy shall be paid by the Secretary using appropriated funds.

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TITLE III—ENERGY SAVINGS THROUGH IMPROVED STANDARDS FOR APPLIANCE AND LIGHTING

Subtitle A—Appliance Energy Efficiency

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SEC. 302. UPDATING APPLIANCE TEST PROCEDURES.

(a) CONSUMER APPLIANCES.—Section 323(b)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)(1)) is amended by striking "(1)" and all that follows through the [end of the paragraph] *end of subparagraph (A)* and inserting the following:

"(1) TEST PROCEDURES.—

"(A) * * *

(b) INDUSTRIAL EQUIPMENT.—Section 343(a) of the Energy Policy and Conservation Act (42 U.S.C. [6313(a)] *6314(a)*) is amended by striking "(a)" and all that follows through the end of paragraph (1) and inserting the following:

"(a) PRESCRIPTION BY SECRETARY; REQUIREMENTS.—

"(1) * * *

* * * * * * *

[SEC. 313. ELECTRIC MOTOR EFFICIENCY STANDARDS.

[(a) DEFINITIONS.—Section 340(13) of the Energy Policy and Conservation Act (42 U.S.C. 6311(13)) is amended—

[(1) by redesignating subparagraphs (B) through (H) as subparagraphs (C) through (I), respectively; and

[(2) by striking "(13)(A)" and all that follows through the end of subparagraph (A) and inserting the following:

["(13) ELECTRIC MOTOR.—

["(A) GENERAL PURPOSE ELECTRIC MOTOR (SUBTYPE I).—The term 'general purpose electric motor (subtype I)' means any motor that meets the definition of 'General Purpose' as established in the final rule issued by the Department of Energy entitled 'Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors' (10 CFR 431), as in effect on the date of enactment of the Energy Independence and Security Act of 2007.

["(B) GENERAL PURPOSE ELECTRIC MOTOR (SUBTYPE II).—The term 'general purpose electric motor (subtype II)' means motors incorporating the design elements of a general purpose electric motor (subtype I) that are configured as 1 of the following:

["(i) A U-Frame Motor.

["(ii) A Design C Motor.

["(iii) A close-coupled pump motor.

[“(iv) A Footless motor.

[“(v) A vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

[“(vi) An 8-pole motor (900 rpm).

[“(vii) A poly-phase motor with voltage of not more than 600 volts (other than 230 or 460 volts.”.

[(b) STANDARDS.—

[(1) AMENDMENTS.—Section 342(b) of the Energy Policy and Conservation Act (42 U.S.C. 6313(b)) is amended—

[(A) by redesignating paragraphs (2) and (3) as paragraphs (3) and (4), respectively; and

[(B) by inserting after paragraph (1) the following:

[“(2) ELECTRIC MOTORS.—

[“(A) GENERAL PURPOSE ELECTRIC MOTORS (SUBTYPE I).—Except as provided in subparagraph (B), each general purpose electric motor (subtype I) with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 3-year period beginning on the date of enactment of the Energy Independence and Security Act of 2007, shall have a nominal full load efficiency that is not less than as defined in NEMA MG–1 (2006) Table 12–12.

[“(B) FIRE PUMP MOTORS.—Each fire pump motor manufactured (alone or as a component of another piece of equipment) after the 3-year period beginning on the date of enactment of the Energy Independence and Security Act of 2007 shall have nominal full load efficiency that is not less than as defined in NEMA MG–1 (2006) Table 12–11.

[“(C) GENERAL PURPOSE ELECTRIC MOTORS (SUBTYPE II).—Each general purpose electric motor (subtype II) with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 3-year period beginning on the date of enactment of the Energy Independence and Security Act of 2007, shall have a nominal full load efficiency that is not less than as defined in NEMA MG–1 (2006) Table 12–11.

[“(D) NEMA DESIGN B, GENERAL PURPOSE ELECTRIC MOTORS.—Each NEMA Design B, general purpose electric motor with a power rating of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) after the 3-year period beginning on the date of enactment of the Energy Independence and Security Act of 2007, shall have a nominal full load efficiency that is not less than as defined in NEMA MG–1 (2006) Table 12–11.”.

[(2) EFFECTIVE DATE.—The amendments made by paragraph (1) take effect on the date that is 3 years after the date of enactment of this Act.]

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Subtitle B—Lighting Energy Efficiency

SEC. 321. EFFICIENT LIGHT BULBS.

(a) * * *

* * * * * * *

(e) PROHIBITED ACTS.—Section 332(a) of the Energy Policy and Conservation Act (42 U.S.C. 6302(a)) [is amended] *(as amended by section 306(b)) is amended—*

[(1) in paragraph (4), by striking "or" at the end;

[(2) in paragraph (5), by striking the period at the end and inserting "; or"; and]

(1) in paragraph (5), by striking "or" after the semicolon at the end;

(2) in paragraph (6), by striking the period at the end and inserting "; or"; and

* * * * * * *

SEC. 322. INCANDESCENT REFLECTOR LAMP EFFICIENCY STANDARDS.

(a) * * *

(b) STANDARDS FOR FLUORESCENT LAMPS AND INCANDESCENT REFLECTOR LAMPS.—Section 325(i) of the Energy Policy and Conservation Act (42 U.S.C. [6995(i)] *6295(i)*) is amended by striking paragraph (1) and inserting the following:

"(1) STANDARDS.—

"(A) * * *

* * * * * * *

SEC. 325. ENERGY EFFICIENCY LABELING FOR CONSUMER ELECTRONIC PRODUCTS.

(a) * * *

(b) CONTENT OF LABEL.—Section 324(c) of the Energy Policy and Conservation Act (42 U.S.C. [6924(c)] *6294(c)*) is amended by adding at the end the following:

"(9) DISCRETIONARY APPLICATION.—The Commission may apply paragraphs (1), (2), (3), (5), and (6) of this subsection to the labeling of any product covered by paragraph (2)(I) or (6) of subsection (a).".

TITLE IV—ENERGY SAVINGS IN BUILDINGS AND INDUSTRY

SEC. 401. DEFINITIONS.

In this title:

(1) * * *

(2) ADVISORY COMMITTEE.—The term "Advisory Committee" means the Green Building Advisory Committee established under section [484] *494*.

* * * * * * *

(13) HIGH-PERFORMANCE GREEN BUILDING.—The term "high-performance green building" means a high-performance building that, during its life-cycle, as compared with similar buildings (as measured by Commercial Buildings Energy Consump-

tion Survey or Residential Energy Consumption Survey data from the Energy Information [Agency] *Administration*)—

(A) * * *

* * * * * * *

Subtitle C—High-Performance Federal Buildings

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SEC. 436. HIGH-PERFORMANCE GREEN FEDERAL BUILDINGS.

(a) * * *

* * * * * * *

(c) DUTIES.—The Federal Director shall—

(1) * * *

* * * * * * *

(3) establish a senior-level Federal Green Building Advisory Committee under section [474] *494*, which shall provide advice and recommendations in accordance with that section and subsection (d);

* * * * * * *

SEC. 440. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out sections 434 through 439 [and 482] $4,000,000 for each of fiscal years 2008 through 2012, to remain available until expended.

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Subtitle D—Industrial Energy Efficiency

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SEC. 452. ENERGY-INTENSIVE INDUSTRIES PROGRAM.

(a) * * *

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(e) INSTITUTION OF HIGHER EDUCATION-BASED INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—[The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers, whose purpose shall be—]

(1) IN GENERAL.—The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers, whose purposes shall be—

[(1)] *(A)* to identify opportunities for optimizing energy efficiency and environmental performance;

[(2)] *(B)* to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers;

[(3)] *(C)* to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;

[(4)] *(D)* to coordinate with appropriate Federal and State research offices, and provide a clearinghouse for in-

dustrial process and energy efficiency technical assistance resources; and

[(5)] *(E)* to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.

(2) COORDINATION WITH CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.—An industrial research and assessment center may serve as a Center for Energy and Environmental Knowledge and Outreach established pursuant to section 173 of the American Clean Energy and Security Act of 2009.

SEC. 453. ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.

(a) * * *

* * * * * * *

(c) DATA CENTER EFFICIENCY ORGANIZATION.—

(1) IN GENERAL.—After the establishment of the program described in subsection (b) *but not later than 2 years after the date of enactment of this Act*, the Secretary and the Administrator shall jointly designate an information technology industry organization to consult with and to coordinate the program.

* * * * * * *

TITLE V—ENERGY SAVINGS IN GOVERNMENT AND PUBLIC INSTITUTIONS

* * * * * * *

Subtitle E—Energy Efficiency and Conservation Block Grants

SEC. 541. DEFINITIONS.

In this subtitle:

(1) * * *

* * * * * * *

(3)(A) ELIGIBLE UNIT OF LOCAL GOVERNMENT-ALTERNATIVE 1.—The term "eligible unit of local government-alternative 1" means—

(i) a city with a population—

(I) * * *

(II) that causes the city to be 1 of the 10 highest-populated cities of the State in which the city is located; [and]

(ii) a county with a population—

(I) * * *

(II) that causes the county to be 1 of the 10 highest-populated counties of the State in which the county is located[.]*; or*

(iii) a group of adjacent, contiguous, or geographically proximate units of local government that reach agreement to act jointly for purposes of this section and that represent a combined population of not less than 35,000.

(B) ELIGIBLE UNIT OF LOCAL GOVERNMENT-ALTERNATIVE 2.—The term "eligible unit of local government-alternative 2" means—

(i) a city with a population of at least 50,000; [or]

(ii) a county with a population of at least 200,000[.]*; or*

(iii) a group of adjacent, contiguous, or geographically proximate units of local government that reach agreement to act jointly for purposes of this section and that represent a combined population of not less than 50,000.

* * * * * * *

SEC. 545. REQUIREMENTS FOR ELIGIBLE ENTITIES.

(a) * * *

(b) ELIGIBLE UNITS OF LOCAL GOVERNMENT AND INDIAN TRIBES.—

(1) * * *

* * * * * * *

(3) LIMITATIONS ON USE OF FUNDS.—Of amounts provided to an eligible unit of local government or Indian tribe under the program, an eligible unit of local government or [Indian tribe may use—

[(A) for administrative expenses] *Indian tribe may use for administrative expenses*, excluding the cost of meeting the reporting requirements of this subtitle, an amount equal to the greater of—

[(i)] *(A)* 10 percent; and

[(ii)] *(B)* $75,000[;].

[(B) for the establishment of revolving loan funds, an amount equal to the greater of—

[(i) 20 percent; and

[(ii) $250,000; and

[(C) for the provision of subgrants to nongovernmental organizations for the purpose of assisting in the implementation of the energy efficiency and conservation strategy of the eligible unit of local government or Indian tribe, an amount equal to the greater of—

[(i) 20 percent; and

[(ii) $250,000.]

* * * * * * *

TITLE XIII—SMART GRID

* * * * * * *

SEC. 1302. SMART GRID SYSTEM REPORT.

The Secretary, acting through the Assistant Secretary of the Office of Electricity Delivery and Energy Reliability (referred to in this section as the "OEDER") and through the Smart Grid Task Force established in section 1303, shall, after consulting with any interested individual or entity as appropriate, no later than 1 year after [enactment] *the date of enactment of this Act*, and every 2 years thereafter, report to Congress concerning the status of smart grid deployments nationwide and any regulatory or government barriers to continued deployment. The report shall provide the cur-

rent status and prospects of smart grid development, including information on technology penetration, communications network capabilities, costs, and obstacles. It may include recommendations for State and Federal policies or actions helpful to facilitate the transition to a smart grid. To the extent appropriate, it should take a regional perspective. In preparing this report, the Secretary shall solicit advice and contributions from the Smart Grid Advisory Committee created in section 1303; from other involved Federal agencies including but not limited to the Federal Energy Regulatory Commission ("Commission"), the National Institute of Standards and Technology ("Institute"), and the Department of Homeland Security; and from other stakeholder groups not already represented on the Smart Grid Advisory Committee.

* * * * * * *

SEC. 1306. FEDERAL MATCHING FUND FOR SMART GRID INVESTMENT COSTS.

(a) * * *

* * * * * * *

(c) INVESTMENTS NOT INCLUDED.—Qualifying Smart Grid investments do not include any of the following:

(1) * * *

* * * * * * *

(3) After the final date for State consideration of the Smart Grid Information Standard under ❚section 1307 (paragraph (17) of section 111(d) of the Public Utility Regulatory Policies Act of 1978)❚ *paragraph (19) of section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d))*, an investment that is not in compliance with such standard.

* * * * * * *

TITLE 49, UNITED STATES CODE

* * * * * * *

SUBTITLE VI—MOTOR VEHICLE AND DRIVER PROGRAMS

* * * * * * *

PART C—INFORMATION, STANDARDS, AND REQUIREMENTS

* * * * * * *

CHAPTER 329—AUTOMOBILE FUEL ECONOMY

Sec.
32901. Definitions.

* * * * * * *

32920. Open fuel standard for transportation.

* * * * * * *

§ 32920. Open fuel standard for transportation

(a) DEFINITIONS.—In this section:

(1) E85.—The term "E85" means a fuel mixture containing 85 percent ethanol and 15 percent gasoline by volume.

(2) FLEXIBLE FUEL AUTOMOBILE.—The term "flexible fuel automobile" means an automobile that has been warranted by its manufacturer to operate on gasoline, E85, and M85.

(3) FUEL CHOICE-ENABLING AUTOMOBILE.—The term "fuel choice-enabling automobile" means—

(A) a flexible fuel automobile; or

(B) an automobile that has been warranted by its manufacturer to operate on biodiesel.

(4) LIGHT-DUTY AUTOMOBILE.—The term "light-duty automobile" means—

(A) a passenger automobile; or

(B) a non-passenger automobile.

(5) LIGHT-DUTY AUTOMOBILE MANUFACTURER'S ANNUAL COVERED INVENTORY.—The term "light-duty automobile manufacturer's annual covered inventory" means the number of light-duty automobiles powered by an internal combustion engine that a manufacturer, during a given calendar year, manufactures in the United States or imports from outside of the United States for sale in the United States.

(6) M85.—The term "M85" means a fuel mixture containing 85 percent methanol and 15 percent gasoline by volume.

(b) OPEN FUEL STANDARD FOR TRANSPORTATION.—

(1) IN GENERAL.—The Secretary may promulgate regulations to require each light-duty automobile manufacturer's annual covered inventory to be comprised of a minimum percentage of fuel-choice enabling automobiles, with sufficient lead time, if the Secretary, in coordination with the Secretary of Energy and the Administrator of the Environmental Protection Agency, determines such requirement is a cost-effective way to achieve the Nation's energy independence and environmental objectives. The cost-effective determination shall consider the future availability of both alternative fuel supply and infrastructure to deliver the alternative fuel to the fuel-choice enabling vehicles.

(2) TEMPORARY EXEMPTION FROM REQUIREMENTS.—

(A) APPLICATION.—A manufacturer may request an exemption from the requirement described in paragraph (1) by submitting an application to the Secretary, at such time, in such manner, and containing such information as the Secretary may require by regulation. Each such application shall specify the models, lines, and types of automobiles affected.

(B) EVALUATION.—After evaluating an application received from a manufacturer, the Secretary may at any time, under such terms and conditions, and to such extent as the Secretary considers appropriate, temporarily exempt, or renew the exemption of, a light-duty automobile from the requirement described in paragraph (1) if the Secretary determines that unavoidable events not under the control of the manufacturer prevent the manufacturer of such automobile from meeting its required production volume of fuel choice-enabling automobiles, including—

(i) a disruption in the supply of any component required for compliance with the regulations;

(ii) a disruption in the use and installation by the manufacturer of such component; or

(iii) application to plug-in electric drive vehicles causing such vehicles to fail to meet State air quality requirements.

(C) CONSOLIDATION.—The Secretary may consolidate applications received from multiple manufacturers under subparagraph (A) if they are of a similar nature.

(D) CONDITIONS.—Any exemption granted under subparagraph (B) shall be conditioned upon the manufacturer's commitment to recall the exempted automobiles for installation of the omitted components within a reasonable time proposed by the manufacturer and approved by the Secretary after such components become available in sufficient quantities to satisfy both anticipated production and recall volume requirements.

(E) NOTICE.—The Secretary shall publish in the Federal Register—

(i) notice of each application received from a manufacturer;

(ii) notice of each decision to grant or deny a temporary exemption; and

(iii) the reasons for granting or denying such exemptions.

* * * * * * *

ENERGY POLICY ACT OF 2005

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) * * *

* * * * * * *

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

* * * * * * *

TITLE I—ENERGY EFFICIENCY

* * * * * * *

Subtitle B—Energy Assistance and State Programs

* * * * * * *

[Sec. 124. Energy efficient appliance rebate programs.]
Sec. 124. Energy efficient and smart appliance rebate program.

* * * * * * *

Subtitle C—Energy Efficient Products

* * * * * * *

[Sec. 134. Energy efficiency public information initiative.]
Sec. 134. Energy efficiency and Smart Grid public information initiative.

* * * * * * *

TITLE I—ENERGY EFFICIENCY

* * * * * * *

Subtitle B—Energy Assistance and State Programs

* * * * * * *

SEC. 124. [ENERGY EFFICIENT APPLIANCE REBATE PROGRAMS.] *ENERGY EFFICIENT AND SMART APPLIANCE REBATE PROGRAM.*

(a) DEFINITIONS.—In this section:

(1) * * *

* * * * * * *

(4) SMART APPLIANCE.—The term "smart appliance" means a product that the Administrator of the Environmental Protection Agency or the Secretary of Energy has determined qualifies for such a designation in the Energy Star program pursuant to section 142 of the American Clean Energy and Security Act of 2009, or that the Secretary or the Administrator has separately determined includes the relevant Smart Grid capabilities listed in section 1301 of the Energy Independence and Security Act of 2007 (15 U.S.C. 17381).

[(4)] *(5)* STATE ENERGY OFFICE.—The term "State energy office" means the State agency responsible for developing State energy conservation plans under section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322).

[(5)] *(6)* STATE PROGRAM.—The term "State program" means a State energy efficient appliance rebate program described in subsection (b)(1).

(b) ELIGIBLE STATES.—A State shall be eligible to receive an allocation under subsection (c) if the State—

(1) establishes (or has established) a State energy efficient *and smart* appliance rebate program to provide rebates to residential consumers for the purchase of residential Energy Star products*, including products designated as being smart appliances*, or products with improved energy efficiency in cold climates, to replace used appliances of the same type;

* * * * * * *

(3) provides assurances satisfactory to the Secretary that the State will use the allocation to supplement, but not supplant, funds made available to carry out *the administration of* the State program.

* * * * * * *

(d) USE OF ALLOCATED FUNDS.—The allocation to a State energy office under subsection (c) may be used to pay up to 50 percent of the cost of establishing and carrying out *the administration of* a State program*, and up to 100 percent of the value of the rebates provided pursuant to this section*.

(e) ISSUANCE OF REBATES.—Rebates may be provided to residential consumers that meet the requirements of the State program.

The amount of a rebate shall be determined by the State energy office, taking into consideration—

(1) * * *

* * * * * * *

(3) the difference between the cost of the residential Energy Star product*, with separate consideration as applicable if the product is also a smart appliance,* or product with improved energy efficiency in a cold climate and the cost of an appliance that is not a residential Energy Star product or product with improved energy efficiency in a cold climate, but is of the same type as, and is the nearest capacity, performance, and other relevant characteristics (as determined by the State energy office) to, the residential Energy Star product or product with improved energy efficiency in a cold climate *or smart appliance*.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section [$50,000,000 for each of the fiscal years 2006 through 2010.] *$100,000,000 for each fiscal year from 2010 through 2015.*

* * * * * * *

Subtitle C—Energy Efficient Products

* * * * * * *

SEC. 134. [ENERGY EFFICIENCY PUBLIC INFORMATION INITIATIVE.] *ENERGY EFFICIENCY AND SMART GRID PUBLIC INFORMATION INITIATIVE.*

(a) IN GENERAL.—The Secretary shall carry out a comprehensive national program, including advertising and media awareness, to inform consumers about—

(1) the need to [reduce energy consumption during the 4-year period beginning on the date of enactment of this Act] *increase energy efficiency and to adopt Smart Grid technology and practices*;

(2) the [benefits to consumers of reducing] *economic and environmental benefits to consumers and the United States of optimizing* consumption of electricity, natural gas, and petroleum, particularly during peak use periods;

(3) *the effect of energy efficiency and Smart Grid capability in reducing energy and electricity prices throughout the economy, together with* the importance of low energy costs to economic growth and preserving manufacturing jobs in the United States; and

(4) practical, cost-effective measures that consumers can take to reduce consumption of electricity, natural gas, and gasoline, including—

(A) * * *

* * * * * * *

(C) purchasing energy efficient products; [and]

(D) purchasing and utilizing equipment that includes Smart Grid features and capability; and

[(D)] *(E)* proper tire maintenance.

* * * * * * *

(c) REPORT.—[Not later than July 1, 2009,] *For each year when appropriations pursuant to the authorization in this section exceed $10,000,000,* the Secretary shall submit to Congress a report describing the effectiveness of the program under this section.

(d) TERMINATION OF AUTHORITY.—The program carried out under this section shall terminate on December 31, [2010] *2020*.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $90,000,000 for each of fiscal years 2006 through [2010] *2020*.

* * * * * * *

TITLE II—RENEWABLE ENERGY

Subtitle A—General Provisions

* * * * * * *

SEC. 203. FEDERAL PURCHASE REQUIREMENT.

(a) REQUIREMENT.—The President, acting through the Secretary, shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of [electric] energy the Federal Government consumes during any fiscal year, the following amounts shall be renewable energy:

(1) * * *

* * * * * * *

(b) DEFINITIONS.—In this section:

(1) * * *

(2) RENEWABLE ENERGY.—The term "renewable energy" means electric *or thermal* energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

[(c) CALCULATION.—For purposes of determining compliance with the requirement of this section, the amount of renewable energy shall be doubled if—

[(1) the renewable energy is produced and used on-site at a Federal facility;

[(2) the renewable energy is produced on Federal lands and used at a Federal facility; or

[(3) the renewable energy is produced on Indian land as defined in title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.) and used at a Federal facility.]

(c) CALCULATION.—Renewable energy produced at a Federal facility, on Federal lands, or on Indian lands (as defined in title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.)) shall be calculated separately from renewable energy consumed at a Federal facility, and each may be used to comply with the consumption requirement under subsection (a).

* * * * * * *

TITLE VII—VEHICLES AND FUELS

* * * * * * *

Subtitle G—Diesel Emissions Reduction

SEC. 791. DEFINITIONS.

In this subtitle:

(1) * * *

* * * * * * *

(3) ELIGIBLE ENTITY.—The term "eligible entity" means—

(A) * * *

(B) a nonprofit organization or institution *in any State* that—

(i) * * *

* * * * * * *

(9) DEFINITION OF STATE.—[The term "State" includes the District of Columbia.] *The term "State" includes the District of Columbia, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, Puerto Rico, and the Virgin Islands.*

* * * * * * *

SEC. 793. STATE GRANT AND LOAN PROGRAMS.

(a) * * *

* * * * * * *

(c) ALLOCATION OF FUNDS.—

(1) * * *

(2) ALLOCATION.—Using not more than 20 percent of the funds made available to carry out this subtitle for a fiscal year, the Administrator shall provide to each State described in paragraph (1) for the fiscal year an allocation of funds that is equal to—

(A) if each of the [51 States] *56 States* qualifies for an allocation, an amount equal to [1.96 percent] *1.785 percent* of the funds made available to carry out this section; or

(B) if fewer than [51 States] *56 States* qualifies for an allocation, an amount equal to the amount described in subparagraph (A), plus an additional amount equal to the product obtained by multiplying—

(i) * * *

[(ii) the amount of funds remaining after each State described in paragraph (1) receives the 2-percent allocation under this paragraph.]

(ii) the amount of funds remaining after each State described in paragraph (1) receives the 1.785-percent allocation under this paragraph.

* * * * * * *

TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES

SEC. 1701. DEFINITIONS.

In this title:

(1) * * *

* * * * * * *

(6) RENEWABLE FUEL.—The term "renewable fuel" has the meaning given the term in section 211(o)(1) of the Clean Air Act (42 U.S.C. 7545(o)(1)), except that the term shall include all ethanol and biodiesel.

(7) RENEWABLE FUEL PIPELINE.—The term "renewable fuel pipeline" means a common carrier pipeline for transporting renewable fuel.

(8) CONDITIONAL COMMITMENT.—The term "conditional commitment" means a final term sheet negotiated between the Secretary and a project sponsor or sponsors, which term sheet shall be binding on both parties and become a final loan guarantee agreement if all conditions precedent established in the term sheet, which shall include the acquisition of all necessary permits and licenses, are satisfied.

SEC. 1702. TERMS AND CONDITIONS.

(a) * * *

[(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—No guarantee shall be made unless—

[(1) an appropriation for the cost has been made; or

[(2) the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury.]

(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

(1) IN GENERAL.—No guarantee shall be made unless—

(A) an appropriation for the cost has been made;

(B) the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury; or

(C) a combination of appropriations or payments from the borrower has been made sufficient to cover the cost of the obligation.

(2) LIMITATION.—The source of payments received from a borrower under paragraph (1)(B) shall not be a loan or other debt obligation that is made or guaranteed by the Federal Government.

* * * * * * *

(h) FEES.—

(1) * * *

[(2) AVAILABILITY.—Fees collected under this subsection shall—

[(A) be deposited by the Secretary into the Treasury; and

[(B) remain available until expended, subject to such other conditions as are contained in annual appropriations Acts.]

(2) AVAILABILITY.—Fees collected under this subsection shall—

(A) be deposited by the Secretary into a special fund in the Treasury to be known as the "Incentives For Innovative Technologies Fund"; and

(B) remain available to the Secretary for expenditure, without further appropriation or fiscal year limitation, for administrative expenses incurred in carrying out this title.

* * * * * * *

(k) WAGE RATE REQUIREMENTS.—No loan guarantee shall be made under this title unless the borrower has provided to the Secretary reasonable assurances that all laborers and mechanics employed by contractors and subcontractors in the performance of construction work financed in whole or in part by the guaranteed loan will be paid wages at rates not less than those prevailing on projects of a character similar to the contract work in the civil subdivision of the State in which the contract work is to be performed as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40, United States Code. With respect to the labor standards specified in this subsection, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

SEC. 1703. ELIGIBLE PROJECTS.

(a) * * *

(b) CATEGORIES.—Projects from the following categories shall be eligible for a guarantee under this section:

(1) * * *

* * * * * * *

(11) Renewable fuel pipelines.

(12) The development, construction, acquisition, retrofitting, or engineering integration of a qualified advanced electric transmission manufacturing plant or the construction of a qualified advanced electric transmission property (whether by construction of new facilities or the modification of existing facilities). For purposes of this paragraph, the terms "qualified advanced electric transmission property" and "qualified advanced electric transmission manufacturing plant" have the meanings provided by section 1705(a)(5).

* * * * * * *

SEC. 1705. TEMPORARY PROGRAM FOR RAPID DEPLOYMENT OF RENEWABLE ENERGY AND ELECTRIC POWER TRANSMISSION PROJECTS.

(a) IN GENERAL.—Notwithstanding section 1703, the Secretary may make guarantees under this section only for the following categories of projects that commence construction not later than September 30, 2011:

(1) * * *

* * * * * * *

(5) The development, construction, acquisition, retrofitting, or engineering integration of a qualified advanced electric transmission manufacturing plant or the construction of a qualified high efficiency transmission property or a qualified advanced

electric transmission property (whether by construction of new facilities or the modification of existing facilities). For purposes of this paragraph:

(A) The term "qualified advanced electric transmission property" means any high voltage electric transmission cable, related substation, converter station, or other integrated facility that—

(i) utilizes advanced ultra low resistance superconductive material or other advanced technology that has been determined by the Secretary of Energy as—

(I) reasonably likely to become commercially viable within 10 years after the date of enactment of this paragraph;

(II) capable of reliably transmitting at least 5 gigawatts of high-voltage electric energy for distances greater than 300 miles with energy losses not exceeding 3 percent of the total power transported; and

(III) not creating an electromagnetic field;

(ii) has been determined by an appropriate energy regulatory body, upon application, to be in the public interest and thereby eligible for inclusion in regulated rates; and

(iii) can be located safely and economically in a permanent underground right of way not to exceed 25 feet in width.

The term "qualified advanced electric transmission property" shall not include any property placed in service after December 31, 2016.

(B)(i) The term "qualified high efficiency transmission property" means any high voltage overhead electric transmission line, related substation, or other integrated facility that—

(I) utilizes advanced conductor core technology that—

(aa) has been determined by the Secretary of Energy as reasonably likely to become commercially viable within 10 years after the date of enactment of this paragraph;

(bb) is suitable for use on transmission lines up to 765kV; and

(cc) exhibits power losses at least 30 percent lower than that of transmission lines using conventional "ACSR" conductors;

(II) has been determined by an appropriate energy regulatory body, upon application, to be in the public interest and thereby eligible for inclusion in regulated rates; and

(III) can be located safely and economically in a right of way not to exceed that used by conventional "ACSR" conductors; and

(ii) The term "qualified high efficiency transmission property" shall not include any property placed in service after December 31, 2016.

(C) The term "qualified advanced electric transmission manufacturing plant" means any industrial facility located in the United States which can be equipped, re-equipped, expanded, or established to produce in whole or in part qualified advanced electric transmission property.

* * * * * * *

ENERGY POLICY AND CONSERVATION ACT

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Energy Policy and Conservation Act".

TABLE OF CONTENTS

* * * * * * *

TITLE III—IMPROVING ENERGY EFFICIENCY

* * * * * * *

PART C—CERTAIN INDUSTRIAL EQUIPMENT

* * * * * * *

[Sec. 334. Injunctive enforcement.]
Sec. 334. Jurisdiction and venue.

* * * * * * *

Sec. 347. Motor efficiency rebate program.

* * * * * * *

TITLE III—IMPROVING ENERGY EFFICIENCY

* * * * * * *

PART B—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS OTHER THAN AUTOMOBILES

DEFINITIONS

SEC. 321. For purposes of this part:

(1) * * *

* * * * * * *

[(6) The term "energy conservation standard" means—

[(A) a performance standard which prescribes a minimum level of energy efficiency or a maximum quantity of energy use, or, in the case of showerheads, faucets, water closets, and urinals, water use, for a covered product, determined in accordance with test procedures prescribed under section 323; or

[(B) a design requirement for the products specified in paragraphs (6), (7), (8), (10), (15), (16), (17), and (19) of section 322(a); and

includes any other requirements which the Secretary may prescribe under section 325(r).]

(6) ENERGY CONSERVATION STANDARD.—

(A) IN GENERAL.—The term "energy conservation standard" means 1 or more performance standards that—

(i) for covered products (excluding clothes washers, dishwashers, showerheads, faucets, water closets, and

urinals), prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323;

(ii) for showerheads, faucets, water closets, and urinals, prescribe a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with test procedures prescribed under section 323; and

(iii) for clothes washers and dishwashers—

(I) prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323; and

(II) may include a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with those test procedures.

(B) INCLUSIONS.—The term "energy conservation standard" includes—

(i) 1 or more design requirements, if the requirements were established—

(I) on or before the date of enactment of this subclause;

(II) as part of a direct final rule under section 325(p)(4); or

(III) as part of a final rule published on or after January 1, 2012, and

(ii) any other requirements that the Secretary may prescribe under section 325(r).

(C) EXCLUSION.—The term "energy conservation standard" does not include a performance standard for a component of a finished covered product, unless regulation of the component is specifically authorized or established pursuant to this title.

* * * * * * *

(30)(A) * * *

* * * * * * *

(C) Except as provided in subparagraph (E), the term "incandescent lamp" means a lamp in which light is produced by a filament heated to incandescence by an electric current, including only the following:

(i) * * *

(ii) Any lamp (commonly referred to as a reflector lamp) which is not colored or designed for rough or vibration service applications, that contains an inner reflective coating on the outer bulb to direct the light, an R, PAR, ER, BR, BPAR, or similar bulb shapes with E26 medium screw bases, a rated voltage or voltage range that lies at least partially within 115 and 130 volts, a diameter which exceeds 2.25 inches, and has a rated wattage that is 40 watts or higher.

* * * * * * *

(D) GENERAL SERVICE INCANDESCENT LAMP.—

(i) IN GENERAL.—The term "general service incandescent lamp" means a standard incandescent or halogen type lamp that—

(I) * * *

* * * * * * *

(III) has a lumen range of not less than 310 lumens and not more than 2,600 lumens *or, in the case of a modified spectrum lamp, not less than 232 lumens and not more than 1,950 lumens*; and

* * * * * * *

(T) APPLIANCE LAMP.—The term "appliance lamp" means any lamp that—

(i) is specifically designed to operate in a household appliance[,] *and* has a maximum wattage of 40 watts, [and is sold at retail,] including an oven lamp, refrigerator lamp, and vacuum cleaner lamp; and

(ii) *when sold at retail,* is designated and marketed for the intended application, with—

(I) * * *

* * * * * * *

(67) ART WORK LIGHT FIXTURE.—The term "art work light fixture" means a light fixture designed only to be mounted directly to an art work and for the purpose of illuminating that art work.

(68) LED LIGHT ENGINE.—The term "LED light engine" or "LED light engine with integral heat sink" means a subsystem of an LED light fixture that—

(A) includes 1 or more LED components, including—

(i) an LED driver power source with electrical and mechanical interfaces; and

(ii) an integral heat sink to provide thermal dissipation; and

(B) may be designed to accept additional components that provide aesthetic, optical, and environmental control.

(69) LED LIGHT FIXTURE.—The term "LED light fixture" means a complete lighting unit consisting of—

(A) an LED light source with 1 or more LED lamps or LED light engines; and

(B) parts—

(i) to distribute the light;

(ii) to position and protect the light source; and

(iii) to connect the light source to electrical power.

(70) LIGHT FIXTURE.—The term "light fixture" means a product designed to provide light that includes—

(A) at least 1 lamp socket; and

(B) parts—

(i) to distribute the light;

(ii) position and protect 1 or more lamps; and

(iii) to connect 1 or more lamps to a power supply.

(71) PORTABLE LIGHT FIXTURE.—

(A) IN GENERAL.—The term "portable light fixture" means a light fixture that has a flexible cord and an attachment plug for connection to a nominal 120-volt circuit that—

(i) allows the user to relocate the product without any rewiring; and

(ii) typically can be controlled with a switch located on the product or the power cord of the product.

(B) EXCLUSIONS.—The term "portable light fixture" does not include—

(i) direct plug-in night lights, sun or heat lamps, medical or dental lights, portable electric hand lamps, signs or commercial advertising displays, photographic lamps, germicidal lamps, or light fixtures for marine use or for use in hazardous locations (as those terms are defined in ANSI/NFPA 70 of the National Electrical Code); or

(ii) decorative lighting strings, decorative lighting outfits, or electric candles or candelabra without lamp shades that are covered by Underwriter Laboratories (UL) standard 588, "Seasonal and Holiday Decorative Products".

(72) GU–24.—The term "GU–24" means the designation of a lamp socket, based on a coding system by the International Electrotechnical Commission, under which—

(A) "G" indicates a holder and socket type with 2 or more projecting contacts, such as pins or posts;

(B) "U" distinguishes between lamp and holder designs of similar type that are not interchangeable due to electrical or mechanical requirements; and

(C) 24 indicates the distance in millimeters between the electrical contact posts.

(73) GU-24 ADAPTOR.—

(A) IN GENERAL.—The term "GU-24 Adaptor" means a 1-piece device, pig-tail, wiring harness, or other such socket or base attachment that—

(i) connects to a GU-24 socket on 1 end and provides a different type of socket or connection on the other end; and

(ii) does not alter the voltage.

(B) EXCLUSION.—The term "GU-24 Adaptor" does not include a fluorescent ballast with a GU–24 base.

(74) GU–24 BASE LAMP.—"GU–24 base lamp" means a light bulb designed to fit in a GU–24 socket.

(75) The term "water dispenser" means a factory-made assembly that mechanically cools and heats potable water and that dispenses the cooled or heated water by integral or remote means.

(76) The term "bottle-type water dispenser" means a drinking water dispenser designed for dispensing both hot and cold water that uses a removable bottle or container as the source of potable water.

(77) The term "commercial hot food holding cabinet" means a heated, fully-enclosed compartment with one or more solid or glass doors that is designed to maintain the temperature of hot food that has been cooked in a separate appliance. Such term does not include heated glass merchandizing cabinets, drawer warmers, commercial hot food holding cabinets with interior volumes of less than 8 cubic feet, or cook-and-hold appliances.

(78) The term "portable electric spa" means a factory-built electric spa or hot tub, supplied with equipment for heating and circulating water.

COVERAGE

SEC. 322. (a) IN GENERAL.—The following consumer products, excluding those consumer products designed solely for use in recreational vehicles and other mobile equipment, are covered products:

(1) * * *

* * * * * * *

(20) Portable light fixtures.

(21) Bottle type water dispensers.

(22) Commercial hot food holding cabinets.

(23) Portable electric spas.

[(20)**]** *(24)* Any other type of consumer product which the Secretary classifies as a covered product under subsection (b).

* * * * * * *

TEST PROCEDURES

SEC. 323. (a) * * *

(b) AMENDED AND NEW PROCEDURES.—

(1) * * *

* * * * * * *

(19) LED FIXTURES AND LED LIGHT ENGINES.—Test procedures for LED fixtures and LED light engines shall be based on Illuminating Engineering Society of North America (IESNA) test procedure LM–79, Approved Method for Electrical and Photometric Testing of Solid-State Lighting Devices, and IESNA-approved test procedure for testing LED light engines.

(20) BOTTLE TYPE WATER DISPENSERS.—Test procedures for bottle type water dispensers shall be based on "Energy Star Program Requirements for Bottled Water Coolers version 1.1" published by the Environmental Protection Agency. Units with an integral, automatic timer shall not be tested using section 4D, "Timer Usage," of the test criteria.

(21) COMMERCIAL HOT FOOD HOLDING CABINETS.—Test procedures for commercial hot food holding cabinets shall be based on the test procedures described in ANSI/ASTM F2140–01 (Test for idle energy rate-dry test). Interior volume shall be based on the method shown in the Environmental Protection Agency's "Energy Star Program Requirements for Commercial Hot Food Holding Cabinets" as in effect on August 15, 2003.

(22) PORTABLE ELECTRIC SPAS.—Test procedures for portable electric spas shall be based on the test method for portable electric spas contained in section 1604, title 20, California Code of Regulations as amended on December 3, 2008. When the American National Standards Institute publishes a test procedure for portable electric spas, the Secretary shall revise the Department of Energy's procedure.

(23) CONSENSUS AND ALTERNATE TEST PROCEDURES.—

(A) RECEIPT OF JOINT RECOMMENDATION OR ALTERNATE TESTING PROCEDURE.—On receipt of—

(i) a statement that is submitted jointly by interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by the Secretary, and contains recommendations with respect to the testing procedure for a covered product; or

(ii) a submission of a testing procedure currently in use for a covered product by a State, nation, or group of nations—

(I) if the Secretary determines that the recommended testing procedure contained in the statement or submission is in accordance with subsection (b)(3), the Secretary may issue a final rule that establishes an energy or water conservation testing procedure that is published simultaneously with a notice of proposed rulemaking that proposes a new or amended energy or water conservation testing procedure that is identical to the testing procedure established in the final rule to establish the recommended testing procedure (referred to in this paragraph as a "direct final rule"); or

(II) if the Secretary determines that a direct final rule cannot be issued based on the statement or submission, the Secretary shall publish a notice of the determination, together with an explanation of the reasons for the determination.

(B) PUBLIC COMMENT.—The Secretary shall solicit public comment for a period of at least 110 days with respect to each direct final rule issued by the Secretary under subparagraph (A)(ii)(I).

(C) WITHDRAWAL OF DIRECT FINAL RULES.—

(i) IN GENERAL.—Not later than 120 days after the date on which a direct final rule issued under subparagraph (A)(ii)(I) is published in the Federal Register, the Secretary shall withdraw the direct final rule if—

(I) the Secretary receives 1 or more adverse public comments relating to the direct final rule under subparagraph (B)or any alternative joint recommendation; and

(II) based on the rulemaking record relating to the direct final rule, the Secretary determines that such adverse public comments or alternative joint recommendation may provide a reasonable basis for withdrawing the direct final rule under paragraph (3) or any other applicable law.

(ii) ACTION ON WITHDRAWAL.—On withdrawal of a direct final rule under clause (i), the Secretary shall—

(I) proceed with the notice of proposed rulemaking published simultaneously with the direct final rule as described in subparagraph (A)(ii)(I); and

(II) publish in the Federal Register the reasons why the direct final rule was withdrawn.

(iii) TREATMENT OF WITHDRAWN DIRECT FINAL RULES.—A direct final rule that is withdrawn under clause (i) shall not be considered to be a final rule for purposes of subsection (b).

(D) EFFECT OF PARAGRAPH.—Nothing in this paragraph authorizes the Secretary to issue a direct final rule based solely on receipt of more than 1 statement containing recommended test procedures relating to the direct final rule.

(24) TELEVISIONS.—(A) On the date of enactment of this paragraph, Appendix H to Subpart B of Part 430 of the United States Code of Federal Regulations, "Uniform Test Method for Measuring the Energy Consumption of Television Sets", is repealed.

(B) No later than 12 months after the date of enactment of this paragraph the Secretary shall publish in the Federal Register a final rule prescribing a new test method for televisions.

* * * * * * *

LABELING

SEC. 324. (a) IN GENERAL.—(1) * * *
(2)(A) * * *

* * * * * * *

(I)(i) Not later than 90 days after the date of enactment of this subparagraph, the Commission shall initiate a rulemaking to implement the additional labeling requirements specified in subsection (c)(1)(C) of this section with an effective date for the revised labeling requirement not later than 12 months from issuance of the final rule.

(ii) Not later than 24 months after the date of enactment of this subparagraph, the Commission shall complete the rulemaking initiated under clause (i).

(iii) Not later than 90 days after issuance of the final rule as provided in this subparagraph, the Secretary shall issue calculation methods required to effectuate the labeling requirements specified in subsection (c)(1)(C) of this section.

(J)(i) Not later than 3 years after the date of enactment of this subparagraph, the Federal Trade Commission shall initiate a rulemaking to consider making a special note in a prominent manner on any ENERGY GUIDE label for any product actually including Smart Grid capability that—

(I) Smart Grid capability is a feature of that product;

(II) the use and value of that feature depended on the Smart Grid capability of the utility system in which the product was installed and the active utilization of that feature by the customer; and

(III) on a utility system with Smart Grid capability, the use of the product's Smart Grid capability could reduce the customer's cost of the product's annual operation by an estimated dollar amount range representing the result of incremental energy and electricity cost savings that would result from the customer taking full advantage of such Smart Grid capability.

(ii) Not later than 3 years after the date of enactment of this subparagraph, the Commission shall complete the rulemaking initiated under clause (i).

* * * * * * *

(c) CONTENT OF LABEL.—(1) Subject to paragraph (6), a rule prescribed under this section shall require that each covered product in the type or class of covered products to which the rule applies bear a label which discloses—

(A) the estimated annual operating cost of such product (determined in accordance with test procedures prescribed under section 323), except that if—

(i) * * *

* * * * * * *

the Commission shall require disclosure of a different useful measure of energy consumption (determined in accordance with test procedures prescribed under section 323); **[**and**]**

(B) information respecting the range of estimated annual operating costs for covered products to which the rule applies; except that if the Commission requires disclosure under subparagraph (A) of a measure of energy consumption different from estimated annual operating cost, then the label shall disclose the range of such measure of energy consumption of covered products to which such rule applies**[**.**]***;*

(C) for products or groups of products providing a comparable function (including the group of products comprising the heating function of heat pumps and furnaces) among covered products listed in paragraphs (3), (4), (5), (8), (9), (10), and (11) of section 322(a) of this part, and others designated by the Secretary, the estimated total annual atmospheric carbon dioxide emissions (or their equivalent in other greenhouse gases) associated with, or caused by, the product, calculated utilizing—

(i) national average energy use for the product including energy consumed at the point of end use based on test procedures developed under section 323 of this part;

(ii) national average energy consumed or lost in the production, generation, transportation, storage, and distribution of energy to the point of end use; and

(iii) any direct emissions of greenhouse gases from the product during normal use;

(D) in determining the national average energy consumption and total annual atmospheric carbon dioxide emissions, the Secretary shall utilize Federal Government sources, including the Energy Information Administration Annual Energy Review, the Environmental Protection Agency eGRID data base, Environmental Protection Agency AP–42 Emission Factors as amended, and other sources determined to be appropriate by the Secretary; and

(E) information presenting, for each product (or group of products providing the comparable function) identified in section (c)(1)(C) of this section, the estimated annual carbon dioxide emissions calculated within the range of emissions calculated for all models of the product or group according to its

function, including those models consuming fuels and those models not consuming fuels.

* * * * * * *

ENERGY STAR PROGRAM

SEC. 324A. (a) * * *

* * * * * * *

(c) DUTIES.—The Administrator and the Secretary shall—

(1) * * *

* * * * * * *

(6) on adoption of a new or revised product category, specification, or criterion, provide reasonable notice to interested parties of any changes (including effective dates) in product categories, specifications, or criteria, along with—

(A) * * *

(B) as appropriate, responses to comments submitted by interested parties; **[**and**]**

(7) provide appropriate lead time (which shall be 270 days, unless the Agency or Department specifies otherwise) prior to the applicable effective date for a new or a significant revision to a product category, specification, or criterion, taking into account the timing requirements of the manufacturing, product marketing, and distribution process for the specific product addressed**[**.**]***;*

(8) in establishing and revising an Energy Star product category, specification, or criterion, require inclusion of developmental products planned for sale within 2 years in the testing or evaluation of products proposed for purposes of such establishment or revision;

(9) not later than 18 months after the date of enactment of this paragraph, establish and implement a rating system for products identified as Energy Star products pursuant to this section to provide consumers with the most helpful information on the relative energy efficiency of those products, unless the Administrator and the Secretary communicate to Congress that establishing such a system would diminish the value of the Energy Star brand to consumers;

(10)(A) review the Energy Star product criteria for the 10 products in each product category with the greatest energy consumption at least once every 3 years; and

(B) based on the review, update and publish the Energy Star product criteria for each such category, as necessary; and

(11) require periodic verification of compliance with the Energy Star product criteria by products identified as Energy Star products pursuant to this section, including—

(A) purchase and testing of products from the market; or

(B) other appropriate testing and compliance approaches.

* * * * * * *

ENERGY CONSERVATION STANDARDS

SEC. 325. (a) * * *

* * * * * * *

(g) STANDARDS FOR DISHWASHERS; CLOTHES WASHERS; CLOTHES DRYERS, FLUORESCENT LAMP BALLASTS.—(1) * * *

* * * * * * *

(8)(A) * * *

* * * * * * *

(C) The standards described in subparagraph (A) do not apply to—

(i) * * *

(ii) a ballast that is designed for use with 2 F96T12HO lamps at ambient temperatures of [20°F] *−20*°F or less and for use in an outdoor sign; or

* * * * * * *

[(i) GENERAL SERVICE FLUORESCENT LAMPS, GENERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE BASE INCANDESCENT LAMPS, CANDELABRA BASE INCANDESCENT LAMPS, AND INCANDESCENT REFLECTOR LAMPS.—

[(1) STANDARDS.—

[(A) DEFINITION OF EFFECTIVE DATE.—In this paragraph (other than subparagraph (D)), the term "effective date" means, with respect to each type of lamp specified in a table contained in subparagraph (B), the last day of the period of months corresponding to that type of lamp (as specified in the table) that follows October 24, 1992.

[(B) MINIMUM STANDARDS.—Each of the following general service fluorescent lamps and incandescent reflector lamps manufactured after the effective date specified in the tables contained in this paragraph shall meet or exceed the following lamp efficacy and CRI standards:

[FLUORESCENT LAMPS

[Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
4-foot medium bi-pin	>35 W	69	75.0	36
	=35 W	45	75.0	36
2-foot U-shaped	>35 W	69	68.0	36
	=35 W	45	64.0	36
8-foot slimline	65 W	69	80.0	18
	=65 W	45	80.0	18
8-foot high output	>100 W	69	80.0	18
	=100 W	45	80.0	18

INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
40–50	10.5	36
51–66	11.0	36
67–85	12.5	36
86–115	14.0	36
116–155	14.5	36
156–205	15.0	36

[(C) EXEMPTIONS.—The standards specified in subparagraph (B) shall not apply to the following types of incandescent reflector lamps:

[(i) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps.

[(ii) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps.

[(iii) R20 incandescent reflector lamps rated 45 watts or less.

[(D) EFFECTIVE DATES.—

[(i) ER, BR, AND BPAR LAMPS.—The standards specified in subparagraph (B) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008.

[(ii) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (B) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after the later of January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

[(2) Notwithstanding section 332(a)(5) and section 332(b), it shall not be unlawful for a manufacturer to sell a lamp which is in compliance with the law at the time such lamp was manufactured.

[(3) Not less than 36 months after the date of the enactment of this subsection, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than the end of the 54-month period beginning on the date of the enactment of this subsection to determine if the standards established under paragraph (1) should be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date such final rule is published.

[(4) Not less than eight years after the date of the enactment of this subsection, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than nine years and six months after the date of the enactment of this subsection to determine if the standards in effect for fluorescent lamps and incandescent lamps should be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date such final rule is published.

[(5) Not later than the end of the 24-month period beginning on the date labeling requirements under section 324(a)(2)(C) become effective, the Secretary shall initiate a rulemaking procedure to determine if the standards in effect for fluorescent lamps and incandescent lamps should be amended so that they would be applicable to additional general service fluorescent and shall publish, not later than 18 months after initiating such rulemaking, a final rule including such amended standards, if any. Such rule shall provide that the amendment shall apply to products manufactured after a date which is 36 months after the date such rule is published.

[(6) STANDARDS FOR GENERAL SERVICE LAMPS.—

[(A) RULEMAKING BEFORE JANUARY 1, 2014.—

[(i) IN GENERAL.—Not later than January 1, 2014, the Secretary shall initiate a rulemaking procedure to determine whether—

[(I) standards in effect for general service lamps should be amended to establish more stringent standards than the standards specified in paragraph (1)(A); and

[(II) the exemptions for certain incandescent lamps should be maintained or discontinued based, in part, on exempted lamp sales collected by the Secretary from manufacturers.

[(ii) SCOPE.—The rulemaking—

[(I) shall not be limited to incandescent lamp technologies; and

[(II) shall include consideration of a minimum standard of 45 lumens per watt for general service lamps.

[(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service incandescent lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2017, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

[(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

[(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

[(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

[(v) BACKSTOP REQUIREMENT.—If the Secretary fails to complete a rulemaking in accordance with clauses (i) through (iv) or if the final rule does not produce savings that are greater than or equal to the savings from a minimum efficacy standard of 45 lumens per watt, effective beginning January 1, 2020, the Secretary shall prohibit the sale of any general service lamp that does not meet a minimum efficacy standard of 45 lumens per watt.

[(vi) STATE PREEMPTION.—Neither section 327(b) nor any other provision of law shall preclude California or Nevada from adopting, effective beginning on or after January 1, 2018—

[(I) a final rule adopted by the Secretary in accordance with clauses (i) through (iv);

[(II) if a final rule described in subclause (I) has not been adopted, the backstop requirement under clause (v); or

[(III) in the case of California, if a final rule described in subclause (I) has not been adopted, any

California regulations relating to these covered products adopted pursuant to State statute in effect as of the date of enactment of the Energy Independence and Security Act of 2007.

[(B) RULEMAKING BEFORE JANUARY 1, 2020.—

[(i) IN GENERAL.—Not later than January 1, 2020, the Secretary shall initiate a rulemaking procedure to determine whether—

[(I) standards in effect for general service incandescent lamps should be amended to reflect lumen ranges with more stringent maximum wattage than the standards specified in paragraph (1)(A); and

[(II) the exemptions for certain incandescent lamps should be maintained or discontinued based, in part, on exempted lamp sales data collected by the Secretary from manufacturers.

[(ii) SCOPE.—The rulemaking shall not be limited to incandescent lamp technologies.

[(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service incandescent lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2022, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

[(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

[(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

[(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

[(7)(A) With respect to any lamp to which standards are applicable under this subsection or any lamp specified in section 346, the Secretary shall inform any Federal entity proposing actions which would adversely impact the energy consumption or energy efficiency of such lamp of the energy conservation consequences of such action. It shall be the responsibility of such Federal entity to carefully consider the Secretary's comments.

[(B) Notwithstanding section 325(n)(1), the Secretary shall not be prohibited from amending any standard, by rule, to permit increased energy use or to decrease the minimum required energy efficiency of any lamp to which standards are applicable under this subsection if such action is warranted as a result of other Federal action (including restrictions on materials or processes) which would have the effect of either increasing the energy use or decreasing the energy efficiency of such product.

[(8) Not later than the date on which standards established pursuant to this subsection become effective, or, with respect to high-intensity discharge lamps covered under section 346, the effective date of standards established pursuant to such section, each manu-

facturer of a product to which such standards are applicable shall file with the Secretary a laboratory report certifying compliance with the applicable standard for each lamp type. Such report shall include the lumen output and wattage consumption for each lamp type as an average of measurements taken over the preceding 12-month period. With respect to lamp types which are not manufactured during the 12-month period preceding the date such standards become effective, such report shall be filed with the Secretary not later than the date which is 12 months after the date manufacturing is commenced and shall include the lumen output and wattage consumption for each such lamp type as an average of measurements taken during such 12-month period.]

(i) GENERAL SERVICE FLUORESCENT LAMPS, GENERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE BASE INCANDESCENT LAMPS, CANDELABRA BASE INCANDESCENT LAMPS, AND INCANDESCENT REFLECTOR LAMPS.—

(1) ENERGY EFFICIENCY STANDARDS.—

(A) IN GENERAL.—Each of the following general service fluorescent lamps, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps, and incandescent reflector lamps manufactured after the effective date specified in the tables listed in this subparagraph shall meet or exceed the following lamp efficacy, new maximum wattage, and CRI standards:

FLUORESCENT LAMPS

Lamp Type	*Nominal Lamp Wattage*	*Minimum CRI*	*Minimum Average Lamp Efficacy (LPW)*	*Effective Date (Period of Months)*
4-foot medium bi-pin	*>35 W*	*69*	*75.0*	*36*
	=35 W	*45*	*75.0*	*36*
2-foot U-shaped	*>35 W*	*69*	*68.0*	*36*
	=35 W	*45*	*64.0*	*36*
8-foot slimline	*65 W*	*69*	*80.0*	*18*
	=65 W	*45*	*80.0*	*18*
8-foot high output	*>100 W*	*69*	*80.0*	*18*
	=100 W	*45*	*80.0*	*18*

INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	*Minimum Average Lamp Efficacy (LPW)*	*Effective Date (Period of Months)*
40–50	*10.5*	*36*
51–66	*11.0*	*36*
67–85	*12.5*	*36*
86–115	*14.0*	*36*
116–155	*14.5*	*36*
156–205	*15.0*	*36*

GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	*Maximum Rated Wattage*	*Minimum Rated Lifetime*	*Effective Date*
1490–2600	*72*	*1,000 hrs*	*1/1/2012*
1050–1489	*53*	*1,000 hrs*	*1/1/2013*
750–1049	*43*	*1,000 hrs*	*1/1/2014*
310–749	*29*	*1,000 hrs*	*1/1/2014*

MODIFIED SPECTRUM GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	*Maximum Rated Wattage*	*Minimum Rated Lifetime*	*Effective Date*
1118–1950	*72*	*1,000 hrs*	*1/1/2012*
788–1117	*53*	*1,000 hrs*	*1/1/2013*
563–787	*43*	*1,000 hrs*	*1/1/2014*
232–562	*29*	*1,000 hrs*	*1/1/2014*

(B) APPLICATION.—

(i) APPLICATION CRITERIA.—This subparagraph applies to each lamp that—

(I) is intended for a general service or general illumination application (whether incandescent or not);

(II) has a medium screw base or any other screw base not defined in ANSI C81.61–2006;

(III) is capable of being operated at a voltage at least partially within the range of 110 to 130 volts; and

(IV) is manufactured or imported after December 31, 2011.

(ii) REQUIREMENT.—For purposes of this paragraph, each lamp described in clause (i) shall have a color rendering index that is greater than or equal to—

(I) 80 for nonmodified spectrum lamps; or

(II) 75 for modified spectrum lamps.

(C) CANDELABRA INCANDESCENT LAMPS AND INTERMEDIATE BASE INCANDESCENT LAMPS.—

(i) CANDELABRA BASE INCANDESCENT LAMPS.—Effective beginning January 1, 2012, a candelabra base incandescent lamp shall not exceed 60 rated watts.

(ii) INTERMEDIATE BASE INCANDESCENT LAMPS.—Effective beginning January 1, 2012, an intermediate base incandescent lamp shall not exceed 40 rated watts.

(D) EXEMPTIONS.—

(i) STATUTORY EXEMPTIONS.—The standards specified in subparagraph (A) shall not apply to the following types of incandescent reflector lamps:

(I) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps.

(II) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps.

(III) R20 incandescent reflector lamps rated 45 watts or less.

(ii) ADMINISTRATIVE EXEMPTIONS.—

(I) PETITION.—Any person may petition the Secretary for an exemption for a type of general service lamp from the requirements of this subsection.

(II) CRITERIA.—The Secretary may grant an exemption under subclause (I) only to the extent that the Secretary finds, after a hearing and opportunity for public comment, that it is not technically feasible to serve a specialized lighting application (such as a military, medical, public safety, or certified historic lighting application) using a lamp that meets the requirements of this subsection.

(III) ADDITIONAL CRITERION.—To grant an exemption for a product under this clause, the Secretary shall include, as an additional criterion, that the exempted product is unlikely to be used in a general service lighting application.

(E) EXTENSION OF COVERAGE.—

(i) PETITION.—Any person may petition the Secretary to establish standards for lamp shapes or bases that are excluded from the definition of general service lamps.

(ii) INCREASED SALES OF EXEMPTED LAMPS.—The petition shall include evidence that the availability or sales of exempted incandescent lamps have increased significantly since the date on which the standards on general service incandescent lamps were established.

(iii) CRITERIA.—The Secretary shall grant a petition under clause (i) if the Secretary finds that—

(I) the petition presents evidence that demonstrates that commercial availability or sales of exempted incandescent lamp types have increased significantly since the standards on general service lamps were established and likely are being widely used in general lighting applications; and

(II) significant energy savings could be achieved by covering exempted products, as determined by the Secretary based in part on sales data provided to the Secretary from manufacturers and importers.

(iv) NO PRESUMPTION.—The grant of a petition under this subparagraph shall create no presumption with respect to the determination of the Secretary with respect to any criteria under a rulemaking conducted under this section.

(v) EXPEDITED PROCEEDING.—If the Secretary grants a petition for a lamp shape or base under this subparagraph, the Secretary shall—

(I) conduct a rulemaking to determine standards for the exempted lamp shape or base; and

(II) complete the rulemaking not later than 18 months after the date on which notice is provided granting the petition.

(F) EFFECTIVE DATES.—

(i) IN GENERAL.—In this paragraph, except as otherwise provided in a table contained in subparagraph (A) or in clause (ii), the term "effective date" means the last day of the month specified in the table that follows October 24, 1992.

(ii) SPECIAL EFFECTIVE DATES.—

(I) ER, BR, AND BPAR LAMPS.—The standards specified in subparagraph (A) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

(II) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (A) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after the later of January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

(2) COMPLIANCE WITH EXISTING LAW.—Notwithstanding section 332(a)(5) and section 332(b), it shall not be unlawful for a manufacturer to sell a lamp that is in compliance with the law at the time the lamp was manufactured.

(3) RULEMAKING BEFORE OCTOBER 24, 1995.—

(A) IN GENERAL.—Not later than 36 months after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than the end of the 54-month period beginning on October 24, 1992, to determine whether the standards established under paragraph (1) should be amended.

(B) ADMINISTRATION.—The rule shall contain the amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date on which the final rule is published.

(4) RULEMAKING BEFORE OCTOBER 24, 2000.—

(A) IN GENERAL.—Not later than 8 years after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than 9 years and 6 months after October 24, 1992, to determine whether the standards in effect for fluorescent lamps and incandescent lamps should be amended.

(B) ADMINISTRATION.—The rule shall contain the amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date on which the final rule is published.

(5) RULEMAKING FOR ADDITIONAL GENERAL SERVICE FLUORESCENT LAMPS.—

(A) IN GENERAL.—Not later than the end of the 24-month period beginning on the date labeling requirements under section 324(a)(2)(C) become effective, the Secretary shall—

(i) initiate a rulemaking procedure to determine whether the standards in effect for fluorescent lamps and incandescent lamps should be amended so that the standards would be applicable to additional general service fluorescent lamps; and

(ii) publish, not later than 18 months after initiating the rulemaking, a final rule including the amended standards, if any.

(B) ADMINISTRATION.—The rule shall provide that the amendment shall apply to products manufactured after a date which is 36 months after the date on which the rule is published.

(6) STANDARDS FOR GENERAL SERVICE LAMPS.—

(A) RULEMAKING BEFORE JANUARY 1, 2014.—

(i) IN GENERAL.—Not later than January 1, 2014, the Secretary shall initiate a rulemaking procedure to determine whether—

(I) standards in effect for general service lamps should be amended; and

(II) the exclusions for certain incandescent lamps should be maintained or discontinued based, in part, on excluded lamp sales collected by the Secretary from manufacturers.

(ii) SCOPE.—The rulemaking—

(I) shall not be limited to incandescent lamp technologies; and

(II) shall include consideration of a minimum standard of 45 lumens per watt for general service lamps.

(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2017, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

(v) BACKSTOP REQUIREMENT.—If the Secretary fails to complete a rulemaking in accordance with clauses (i) through (iv) or if the final rule does not produce savings that are greater than or equal to the savings from a minimum efficacy standard of 45 lumens per watt, effective beginning January 1, 2020, the Secretary shall prohibit the manufacture of any general service lamp that does not meet a minimum efficacy standard of 45 lumens per watt.

(vi) STATE PREEMPTION.—Neither section 327(c) nor any other provision of law shall preclude California or Nevada from adopting, effective beginning on or after January 1, 2018—

(I) a final rule adopted by the Secretary in accordance with clauses (i) through (iv);

(II) if a final rule described in subclause (I) has not been adopted, the backstop requirement under clause (v); or

(III) in the case of California, if a final rule described in subclause (I) has not been adopted, any California regulations relating to these covered products adopted pursuant to State statute in effect as of the date of enactment of the Energy Independence and Security Act of 2007.

(B) RULEMAKING BEFORE JANUARY 1, 2020.—

(i) IN GENERAL.—Not later than January 1, 2020, the Secretary shall initiate a rulemaking procedure to determine whether—

(I) standards in effect for general service lamps should be amended; and

(II) the exclusions for certain incandescent lamps should be maintained or discontinued based, in part, on excluded lamp sales data collected by the Secretary from manufacturers.

(ii) SCOPE.—The rulemaking shall not be limited to incandescent lamp technologies.

(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2022, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

(7) FEDERAL ACTIONS.—

(A) COMMENTS OF SECRETARY.—

(i) IN GENERAL.—With respect to any lamp to which standards are applicable under this subsection or any lamp specified in section 346, the Secretary shall inform any Federal entity proposing actions that would adversely impact the energy consumption or energy efficiency of the lamp of the energy conservation consequences of the action.

(ii) CONSIDERATION.—The Federal entity shall carefully consider the comments of the Secretary.

(B) AMENDMENT OF STANDARDS.—Notwithstanding section 325(n)(1), the Secretary shall not be prohibited from amending any standard, by rule, to permit increased energy use or to decrease the minimum required energy efficiency of any lamp to which standards are applicable under this subsection if the action is warranted as a result of other Federal action (including restrictions on materials or processes) that would have the effect of either increasing the energy use or decreasing the energy efficiency of the product.

(8) COMPLIANCE.—

(A) IN GENERAL.—Not later than the date on which standards established pursuant to this subsection become effective, or, with respect to high-intensity discharge lamps covered under section 346, the effective date of standards established pursuant to that section, each manufacturer of a product to which the standards are applicable shall file with the Secretary a laboratory report certifying compliance with the applicable standard for each lamp type.

(B) CONTENTS.—The report shall include the lumen output and wattage consumption for each lamp type as an average of measurements taken over the preceding 12-month period.

(C) OTHER LAMP TYPES.—With respect to lamp types that are not manufactured during the 12-month period preceding the date on which the standards become effective, the report shall—

(i) be filed with the Secretary not later than the date that is 12 months after the date on which manufacturing is commenced; and

(ii) include the lumen output and wattage consumption for each such lamp type as an average of measurements taken during the 12-month period.

(9) CERTAIN INCANDESCENT REFLECTOR LAMPS.—(A) No later than 12 months after enactment of this paragraph, the Secretary shall publish a final rule establishing standards for incandescent reflector lamp types described in paragraph (1)(D). Such standards shall be effective on July 1, 2013.

(B) Any rulemaking for incandescent reflector lamps completed after enactment of this section shall consider standards for all incandescent reflector lamps, inclusive of those specified in paragraph (1)(C).

(10) REFLECTOR LAMPS.—No later than January 1, 2015, the Secretary shall publish a final rule establishing and amending standards for reflector lamps, including incandescent reflector lamps. Such standards shall be effective no sooner than three years after publication of the final rule. Such rulemaking shall consider incandescent and nonincandescent technologies. Such rulemaking shall consider a new metric other than lumens-per-watt based on the photometric distribution of light from such lamps.

* * * * * * *

(l) STANDARDS FOR OTHER COVERED PRODUCTS.—(1) The Secretary may prescribe an energy conservation standard for any type (or class) of covered products of a type specified in [paragraph

(19)] *paragraph (24)* of section 322(a) if the requirements of subsections (o) and (p) are met and the Secretary determines that—

(A) * * *

* * * * * * *

(2) Any new or amended standard for covered products of a type specified in [paragraph (19)] *paragraph (24)* of section 322(a) shall not apply to products manufactured within five years after the publication of a final rule establishing such standard.

* * * * * * *

(4) ENERGY EFFICIENCY STANDARDS FOR CERTAIN LAMPS.—

(A) IN GENERAL.—The Secretary shall prescribe an energy efficiency standard for rough service lamps, vibration service lamps, 3-way incandescent lamps, 2,601–3,300 lumen general service incandescent lamps, and shatter-resistant lamps [only] in accordance with this paragraph.

* * * * * * *

(o) CRITERIA FOR PRESCRIBING NEW OR AMENDED STANDARDS.—

(1) * * *

(2)(A) * * *

(B)(i) In determining whether a standard is economically justified, the Secretary shall, after receiving views and comments furnished with respect to the proposed standard, determine whether the benefits of the standard exceed its burdens by, to the greatest extent practicable, considering—

(I) * * *

* * * * * * *

(VI) the need for national energy and water conservation; [and]

(VII) the estimated value of the carbon dioxide and other emission reductions that will be achieved by virtue of the higher energy efficiency of the covered products resulting from the imposition of the standard;

(VIII) the estimated impact of standards for a particular product on average consumer energy prices;

(IX) the increased energy efficiency that may be attributable to the installation of Smart Grid technologies or capabilities in the covered products, if applicable in the determination of the Secretary;

(X) the availability in the United States or in other nations of examples or prototypes of covered products that achieve significantly higher efficiency standards for energy or for water; and

[(VII)] *(XI)* other factors the Secretary considers relevant.

* * * * * * *

(iii) If the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than [three] *5* times the value of the energy, and as applicable, water, savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure, there shall be a rebuttable presumption that such standard level is economically justified. [A determination by the Secretary that such criterion is not

met shall not be taken into consideration in the Secretary's determination of whether a standard is economically justified.] *For products with an average expected useful life of less than 5 years, such rebuttable presumption shall be determined utilizing 75 percent of the product's average expected useful life as a multiplier instead of 5. Such a presumption may be rebutted only if the Secretary finds, based on clear, convincing, and reliable evidence, that—*

(I) such standard level would cause serious and unavoidable hardship to the average consumer of the product, or to manufacturers supplying a significant portion of the market for the product, that substantially outweighs the standard level's benefits;

(II) the standard and implementing regulations cannot be designed to avoid or mitigate the hardship identified under subclause (I), through the adoption of regional standards consistent with paragraph (6) of this subsection, or other reasonable means consistent with this part;

(III) the same or substantially similar hardship would not occur under a standard adopted in the absence of the presumption, but that otherwise meets the requirements of this section; and

(IV) the hardship cannot be avoided or mitigated pursuant the procedures specified in section 504 of the Department of Energy Organization Act (42 U.S.C. 7194).

* * * * * * *

*(u) BATTERY CHARGER AND EXTERNAL POWER SUPPLY ELECTRIC ENERGY CONSUMPTION.—(1) * * **

* * * * * * *

[(7)] *(4)* END-USE PRODUCTS.—An energy conservation standard for external power supplies shall not constitute an energy conservation standard for the separate end-use product to which the external power [supplies is] *supply is* connected.

* * * * * * *

(ii) PORTABLE LIGHT FIXTURES.—

(1) IN GENERAL.—Subject to paragraphs (2) and (3), portable light fixtures manufactured on or after January 1, 2012, shall meet 1 or more of the following requirements:

(A) Be a fluorescent light fixture that meets the requirements of the Energy Star Program for Residential Light Fixtures, Version 4.2.

(B) Be equipped with only 1 or more GU–24 line-voltage sockets, not be rated for use with incandescent lamps of any type (as defined in ANSI standards), and meet the requirements of version 4.2 of the Energy Star program for residential light fixtures.

(C) Be an LED light fixture or a light fixture with an LED light engine and comply with the following minimum requirements:

(i) Minimum light output: 200 lumens (initial).

(ii) Minimum LED light engine efficacy: 40 lumens/watt installed in fixtures that meet the minimum light fixture efficacy of 29 lumens/watt or, alternatively, a

minimum LED light engine efficacy of 60 lumens/watt for fixtures that do not meet the minimum light fixture efficacy of 29 lumens/watt.

(iii) All portable fixtures shall have a minimum LED light fixture efficacy of 29 lumens/watt and a minimum LED light engine efficacy of 60 lumens/watt by January 1, 2016.

(iv) Color Correlated Temperature (CCT): 2700K through 4000K.

(v) Minimum Color Rendering Index (CRI): 75.

(vi) Power factor equal to or greater than 0.70.

(vii) Portable luminaries that have internal power supplies shall have zero standby power when the luminaire is turned off.

(viii) LED light sources shall deliver at least 70 percent of initial lumens for at least 25,000 hours.

(D)(i) Be equipped with an ANSI-designated E12, E17, or E26 screw-based socket and be prepackaged and sold together with 1 screw-based compact fluorescent lamp or screw-based LED lamp for each screw-based socket on the portable light fixture.

(ii) The compact fluorescent or LED lamps prepackaged with the light fixture shall be fully compatible with any light fixture controls incorporated into the light fixture (for example, light fixtures with dimmers shall be packed with dimmable lamps).

(iii) Compact fluorescent lamps prepackaged with light fixtures shall meet the requirements of the Energy Star Program for CFLs Version 4.0.

(iv) Screw-based LED lamps shall comply with the minimum requirements described in subparagraph (C).

(E) Be equipped with 1 or more single-ended, non-screw based halogen lamp sockets (line or low voltage), a dimmer control or high-low control, and be rated for a maximum of 100 watts.

(2) REVIEW.—

(A) REVIEW.—The Secretary shall review the criteria and standards established under paragraph (1) to determine if revised standards are technologically feasible and economically justified.

(B) COMPONENTS.—The review shall include consideration of—

(i) whether a separate compliance procedure is still needed for halogen fixtures described in subparagraph (E) and, if necessary, what an appropriate standard for halogen fixtures shall be;

(ii) whether the specific technical criteria described in subparagraphs (A), (C), and (D)(iii) should be modified; and

(iii) which fixtures should be exempted from the light fixture efficacy standard as of January 1, 2016, because the fixtures are primarily decorative in nature (as defined by the Secretary) and, even if exempted, are likely to be sold in limited quantities.

(C) TIMING.—

(i) DETERMINATION.—Not later than January 1, 2014, the Secretary shall publish amended standards, or a determination that no amended standards are justified, under this subsection.

(ii) STANDARDS.—Any standards under this paragraph shall take effect on January 1, 2016.

(3) ART WORK LIGHT FIXTURES.—Art work light fixtures manufactured on or after January 1, 2012, shall—

(A) comply with paragraph (1); or

(B)(i) contain only ANSI-designated E12 screw-based line-voltage sockets;

(ii) have not more than 3 sockets;

(iii) be controlled with an integral high/low switch;

(iv) be rated for not more than 25 watts if fitted with 1 socket; and

(v) be rated for not more than 15 watts per socket if fitted with 2 or 3 sockets.

(4) EXCEPTION FROM PREEMPTION.—Notwithstanding section 327, Federal preemption shall not apply to a regulation concerning portable light fixtures adopted by the California Energy Commission on or before January 1, 2014.

(jj) GU–24 BASE LAMPS.—

(1) IN GENERAL.—A GU–24 base lamp shall not be an incandescent lamp as defined by ANSI.

(2) GU-24 ADAPTORS.—GU–24 adaptors shall not adapt a GU–24 socket to any other line voltage socket.

(kk) BOTTLE TYPE WATER DISPENSERS.—Effective January 1, 2012, bottle-type water dispensers designed for dispensing both hot and cold water shall not have standby energy consumption greater than 1.2 kilowatt-hours per day.

(ll) COMMERCIAL HOT FOOD HOLDING CABINETS.—Effective January 1, 2012, commercial hot food holding cabinets with interior volumes of 8 cubic feet or greater shall have a maximum idle energy rate of 40 watts per cubic foot of interior volume.

(mm) PORTABLE ELECTRIC SPAS.—Effective January 1, 2012, portable electric spas shall not have a normalized standby power greater than $5(V^{2/3})$ Watts where V=the fill volume in gallons.

(nn) REVISIONS.—The Secretary of Energy shall consider revisions to the standards in subsections (kk), (ll), and (mm) in accordance with subsection (o) and publish a final rule no later than January 1, 2013 establishing such revised standards, or make a finding that no revisions are technically feasible and economically justified. Any such revised standards shall take effect January 1, 2016.

[(ii)**]** *(oo)* APPLICATION DATE.—Section 327 applies—

(1) * * *

(2) to products for which energy conservation standards are established under subsections (w) through **[**(hh)**]** *(mm)* on the date of enactment of those subsections, except that any State or local standard prescribed or enacted before the date of enactment of those subsections shall not be preempted until the energy conservation standards established under subsections (w) through **[**(hh)**]** *(mm)* take effect.

REQUIREMENTS OF MANUFACTURERS

SEC. 326. (a) * * *

* * * * * * *

[(d) INFORMATION REQUIREMENTS.—(1) For purposes of carrying out this part, the Secretary may require, under this part or other provision of law administered by the Secretary, each manufacturer of a covered product to submit information or reports to the Secretary with respect to energy efficiency, energy use, or, in the case of showerheads, faucets, water closets, and urinals, water use of such covered product and the economic impact of any proposed energy conservation standard, as the Secretary determines may be necessary to establish and revise test procedures, labeling rules, and energy conservation standards for such product and to insure compliance with the requirements of this part. In making any determination under this paragraph, the Secretary shall consider existing public sources of information, including nationally recognized certification programs of trade associations.

[(2) The Secretary shall exercise authority under this section in a manner designed to minimize unnecessary burdens on manufacturers of covered products.

[(3) The provisions of section 11(d) of the Energy Supply and Environmental Coordination Act of 1974 shall apply with respect to information obtained under this subsection to the same extent and in the same manner as they apply with respect to energy information obtained under section 11 of such Act.]

(d) INFORMATION REQUIREMENTS.—(1) For purposes of carrying out this part, the Secretary shall publish proposed regulations not later than one year after the date of enactment of the American Clean Energy and Security Act of 2009, and after receiving public comment, final regulations not later than 18 months from such date of enactment under this part or other provision of law administered by the Secretary, which shall require each manufacturer of a covered product to submit information or reports to the Secretary on an annual basis in a form adopted by the Secretary. Such reports shall include information or data with respect to—

(A) the manufacturers' compliance with all requirements applicable pursuant to this part;

(B) the economic impact of any proposed energy conservation standard;

(C) the manufacturers' annual shipments of each class or category of covered products, organized, to the maximum extent practicable, by—

(i) energy efficiency, energy use, and, if applicable, water use;

(ii) the presence or absence of such efficiency related or energy consuming operational characteristics or components as the Secretary determines are relevant for the purposes of carrying out this part; and

(iii) the State or regional location of sale, for covered products for which the Secretary may adopt regional standards; and

(D) such other categories of information as the Secretary deems relevant to carry out this part, including such other information as may be necessary to establish and revise test pro-

cedures, labeling rules, and energy conservation standards and to insure compliance with the requirements of this part.

(2) In adopting regulations under this subsection, the Secretary shall consider existing public sources of information, including nationally recognized certification programs of trade associations.

(3) The Secretary shall exercise authority under this section in a manner designed to minimize unnecessary burdens on manufacturers of covered products.

(4) To the extent that they do not conflict with the duties of the Secretary in carrying out this part, the provisions of section 11(d) of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 796(d)) shall apply with respect to information obtained under this subsection to the same extent and in the same manner as they apply with respect to other energy information obtained under such section.

EFFECT ON OTHER LAW

SEC. 327. (a) * * *

(b) GENERAL RULE OF PREEMPTION FOR ENERGY CONSERVATION STANDARDS BEFORE FEDERAL STANDARD BECOMES EFFECTIVE FOR A PRODUCT.—Effective on the date of enactment of the National Appliance Energy Conservation Act of 1987 and ending on the effective date of an energy conservation standard established under section 325 for any covered product, no State regulation, or revision thereof, concerning the energy efficiency, energy use, or water use of the covered product shall be effective with respect to such covered product, unless the State regulation or revision—

(1)(A) * * *

(B) in the case of any portion of any regulation that establishes requirements for general service incandescent lamps, intermediate base incandescent lamps, or candelabra base lamps, was enacted or adopted by the State of California or Nevada before December 4, 2007, except that—

(i) the regulation adopted by the California Energy Commission with an effective date of January 1, 2008, shall only be effective until the effective date of the Federal standard for the applicable lamp category under subparagraphs (A), (B), and (C) of section 325(i)(1); *and*

(ii) the States of California and Nevada may, at any time, modify or adopt a State standard for general service lamps to conform with Federal standards with effective dates no earlier than 12 months prior to the Federal effective dates prescribed under subparagraphs (A), (B), and (C) of section 325(i)(1), at which time any prior regulations adopted by the State of California or Nevada shall no longer be effective**[**; and**]**.

[(iii) all other States may, at any time, modify or adopt a State standard for general service lamps to conform with Federal standards and effective dates.**]**

* * * * * * *

(c) GENERAL RULE OF PREEMPTION FOR ENERGY CONSERVATION STANDARDS WHEN FEDERAL STANDARD BECOMES EFFECTIVE FOR A PRODUCT.—Except as provided in section 325(b)(3)(A)(ii), subparagraphs (B) and (C) of section 325(j)(3), and subparagraphs (B) and

(C) of section 325(k)(3) and effective on the effective date of an energy conservation standard established in or prescribed under section 325 for any covered product, no State regulation concerning the energy efficiency, energy use, or water use of such covered product shall be effective with respect to such product unless the regulation—

(1) * * *

* * * * * * *

(6) is a regulation (or portion thereof) concerning the water efficiency or water use of gravity tank-type low consumption water closets for installation in public places, except that such a regulation shall be effective only until January 1, 1997; **[**or**]**

* * * * * * *

(8)(A) * * *

(B) is an amendment to a regulation described in subparagraph (A) that was developed to align California regulations to changes in the Institute for Transportation Engineers standards, entitled "Performance Specification: Pedestrian Traffic Control Signal Indications"; **[**and**]**

(9) is a regulation concerning metal halide lamp fixtures adopted by the California Energy Commission on or before January 1, 2011, **[**except that—

[(A) if the Secretary fails to issue**]** *except that if the Secretary fails to issue* a final rule within 180 days after the deadlines for rulemakings in section 325(hh), notwithstanding any other provision of this section, preemption shall not apply to a regulation concerning metal halide lamp fixtures adopted by the California Energy Commission—

[(i)**]** *(A)* * * *

[(ii)**]** *(B)* on or before July 1, 2022, if the Secretary fails to meet the deadline specified in section 325(hh)(3)**[**.**]***;*

(10) is a regulation for general service lamps that conforms with Federal standards and effective dates;

(11) is an energy efficiency standard for general service lamps enacted into law by the State of Nevada prior to December 19, 2007, if the State has not adopted the Federal standards and effective dates pursuant to subsection (b)(1)(B)(ii); or

(12) is a regulation concerning standards for hot food holding cabinets, drinking water dispensers and portable electric spas adopted by the California Energy Commission on or before January 1, 2013.

(d) WAIVER OF FEDERAL PREEMPTION.—(1)(A) Any State or river basin commission with a **[**State regulation**]** *State statute or regulation* which provides for any energy conservation standard or other requirement with respect to energy use, energy efficiency, or water use for any type (or class) of covered product for which there is a Federal energy conservation standard under section 325 may file a petition with the Secretary requesting a rule that such **[**State regulation**]** *State statute or regulation* become effective with respect to such covered product.

(B) Subject to paragraphs (2) through (5), the Secretary shall, within the period described in paragraph (2) and after consideration of the petition and the comments of interested persons, pre-

scribe such rule if the Secretary finds (and publishes such finding) that the State or river basin commission has established by a preponderance of the evidence that such State regulation is needed to meet unusual and compelling State or local energy or water interests. *In making such a finding, the Secretary may not reject a petition for failure of the petitioning State or river basin commission to produce confidential information maintained by any manufacturer or distributor, or group or association of manufacturers or distributors, and which the petitioning party does not have the legal right to obtain.*

(C) For purposes of this subsection, the term "unusual and compelling State or local energy or water interests" means interests which—

(i) * * *

(ii) are such that the [costs] *estimated costs*, benefits, burdens, and reliability of energy or water savings resulting from the State regulation make such regulation preferable or necessary when measured against the [costs] *estimated costs*, benefits, burdens, and reliability of alternative approaches to energy or water savings or production, including reliance on reasonably predictable market-induced improvements in efficiency of all products subject to the State regulation.

The factors described in clause (ii) shall be evaluated [within the context of the State's energy plan and forecast, and,] with respect to a State regulation for which a petition has been submitted to the Secretary which provides for any energy conservation standard or requirement with respect to water use of a covered product, within the context of the water supply and groundwater management plan, water quality program, and comprehensive plan (if any) of the State or river basin commission for improving, developing, or conserving a waterway affected by water supply development.

* * * * * * *

(f) EXCEPTION FOR CERTAIN BUILDING CODE REQUIREMENTS.—(1) * * *

* * * * * * *

(3) Effective on the effective date of an energy conservation standard for a covered product established in or prescribed under section 325, a regulation or other requirement contained in a State or local building code for new construction concerning the energy efficiency or energy use of such covered product is not superseded by this part if the code complies with all of the following requirements:

(A) * * *

[(B) The code does not require that the covered product have an energy efficiency exceeding the applicable energy conservation standard established in or prescribed under section 325, except that the required efficiency may exceed such standard up to the level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d).

[(C) The credit to the energy consumption or conservation objective allowed by the code for installing covered products having energy efficiencies exceeding such energy conservation standard established in or prescribed under section 325 or the

efficiency level required in a State regulation referred to in subparagraph (B) is on a one-for-one equivalent energy use or equivalent cost basis.

[(D) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline building designs contain a covered product subject to an energy conservation standard established in or prescribed under section 325, the baseline building designs are based on the efficiency level for such covered product which meets but does not exceed such standard or the efficiency level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d).

[(E) If the code sets forth one or more optional combinations of items which meet the energy consumption or conservation objective, for every combination which includes a covered product the efficiency of which exceeds either standard or level referred to in subparagraph (D), there also shall be at least one combination which includes such covered product the efficiency of which does not exceed such standard or level by more than 5 percent, except that at least one combination shall include such covered product the efficiency of which meets but does not exceed such standard.

[(F) The energy consumption or conservation objective is specified in terms of an estimated total consumption of energy (which may be calculated from energy loss- or gain-based codes) utilizing an equivalent amount of energy (which may be specified in units of energy or its equivalent cost).

[(G) The estimated energy use of any covered product permitted or required in the code, or used in calculating the objective, is determined using the applicable test procedures prescribed under section 323, except that the State may permit the estimated energy use calculation to be adjusted to reflect the conditions of the areas where the code is being applied if such adjustment is based on the use of the applicable test procedures prescribed under section 323 or other technically accurate documented procedure.]

(B) The code meets at least one of the following requirements:

(i) The code does not require that the covered product have an energy efficiency exceeding—

(I) the applicable energy conservation standard established in or prescribed under section 325;

(II) the level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d) of this section; or

(III) the required level established in the International Energy Conservation Code or in a standard of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, or by the Secretary pursuant to section 304 of the Energy Conservation and Production Act.

(ii) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline building designs contain a covered product subject to an energy conservation standard

established in or prescribed under section 325, the baseline building designs are based on an efficiency level for such covered product which meets but does not exceed one of the levels specified in clause (i).

(iii) If the code sets forth one or more optional combinations of items which meet the energy consumption or conservation objective, in at least one combination that the State has found to be reasonably achievable using commercially available technologies the efficiency of the covered product meets but does not exceed one of the levels specified in clause (i).

(C) The credit to the energy consumption or conservation objective allowed by the code for installing covered products having energy efficiencies exceeding one of the levels specified in subparagraph (B)(i) is on a one-for-one equivalent energy use or equivalent energy cost basis, taking into account the typical lifetime of the product.

(D) The energy consumption or conservation objective is specified in terms of an estimated total consumption of energy (which may be calculated from energy loss- or gain-based codes) utilizing an equivalent amount of energy (which may be specified in units of energy or its equivalent cost) and equivalent lifetimes.

(E) The estimated energy use of any covered product permitted or required in the code, or used in calculating the objective, is determined using the applicable test procedures prescribed under section 323, except that the State may permit the estimated energy use calculation to be adjusted to reflect the conditions of the areas where the code is being applied if such adjustment is based on the use of the applicable test procedures prescribed under section 323 or other technically accurate documented procedure.

(4)(A) * * *

[(B) If a building code requires the installation of covered products with efficiencies exceeding both the applicable Federal standard established in or prescribed under section 325 and the applicable standard of such State, if any, that has been granted a waiver under subsection (d), such requirement of the building code shall not be applicable unless the Secretary has granted a waiver for such requirement under subsection (d).**]**

(B) If a building code requires the installation of covered products with efficiencies exceeding the levels and requirements specified in paragraph (3)(B), such requirement of the building code shall not be applicable unless the Secretary has granted a waiver for such requirement under subsection (d) of this section.

* * * * * * *

PROHIBITED ACTS

SEC. 332. (a) IN GENERAL.—It shall be unlawful—

(1) * * *

* * * * * * *

[(6)**]** *(7)* for any manufacturer, distributor, retailer, or private labeler to distribute in commerce an adapter that—

(A) * * *

* * * * * * *

[INJUNCTIVE ENFORCEMENT

[SEC. 334. The United States district courts shall have jurisdiction to restrain (1) any violation of section 332 and (2) any person from distributing in commerce any covered product which does not comply with an applicable rule under section 324 or 325. Any such action shall be brought by the Commission, except that any such action to restrain any violation of section 332(a)(3) which relates to requirements prescribed by the Secretary, any violation of section 332(a)(4) which relates to requests of the Secretary under section 326(b)(2), or any violation of section 332(a)(5) shall be brought by the Secretary. Any such action to restrain any person from distributing in commerce a general service incandescent lamp that does not comply with the applicable standard established under section 325(i) or an adapter prohibited under section 332(a)(6) may also be brought by the attorney general of a State in the name of the State. Any such action may be brought in the United States district court for a district wherein any act, omission, or transaction constituting the violation occurred, or in such court for the district wherein the defendant is found or transacts business. In any action under this section, process may be served on a defendant in any other district in which the defendant resides or may be found.]

SEC. 334. JURISDICTION AND VENUE.

(a) JURISDICTION.—The United States district courts shall have jurisdiction to restrain—

(1) any violation of section 332; and

(2) any person from distributing in commerce any covered product which does not comply with an applicable rule under section 324 or 325.

(b) AUTHORITY.—Any action referred to in subsection (a) shall be brought by the Commission or by the attorney general of a State in the name of the State, except that—

(1) any such action to restrain any violation of section 332(a)(3) which relates to requirements prescribed by the Secretary or any violation of section 332(a)(4) which relates to request of the Secretary under section 326(b)(2) shall be brought by the Secretary; and

(2) any violation of section 332(a)(5) or 332(a)(7) shall be brought by the Secretary or by the attorney general of a State in the name of the State.

(c) VENUE AND SERVICE OF PROCESS.—Any such action may be brought in the United States district court for a district wherein any act, omission, or transaction constituting the violation occurred, or in such court of the district wherein the defendant is found or transacts business. In any action under this section, process may be served on a defendant in any other district in which the defendant resides or may be found.

* * * * * * *

PART C—CERTAIN INDUSTRIAL EQUIPMENT

DEFINITIONS

SEC. 340. For purposes of this part—

(1) The term "covered equipment" means one of the following types of industrial equipment:

(A) * * *

* * * * * * *

[(L) Any other type of industrial equipment which the Secretary classifies as covered equipment under section 341(b).]

(L) Outdoor luminaires.

(M) Outdoor high light output lamps.

(N) Any other type of industrial equipment which the Secretary classifies as covered equipment under section 341(b).

* * * * * * *

(13) ELECTRIC MOTOR.—

[(A) GENERAL PURPOSE ELECTRIC MOTOR (SUBTYPE I).—The term "general purpose electric motor (subtype I)" means any motor that meets the definition of "General Purpose" as established in the final rule issued by the Department of Energy entitled "Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors" (10 CFR 431), as in effect on the date of enactment of the Energy Independence and Security Act of 2007.

[(B) GENERAL PURPOSE ELECTRIC MOTOR (SUBTYPE II).—The term "general purpose electric motor (subtype II)" means motors incorporating the design elements of a general purpose electric motor (subtype I) that are configured as 1 of the following:

[(i) A U-Frame Motor.

[(ii) A Design C Motor.

[(iii) A close-coupled pump motor.

[(iv) A Footless motor.

[(v) A vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

[(vi) An 8-pole motor (900 rpm).

[(vii) A poly-phase motor with voltage of not more than 600 volts (other than 230 or 460 volts.]

(A) IN GENERAL.—The term "electric motor" means any motor that is—

(i) a general purpose T-frame, single-speed, foot-mounting, polyphase squirrel-cage induction motor of the National Electrical Manufacturers Association, Design A and B, continuous rated, operating on 230/460 volts and constant 60 Hertz line power as defined in NEMA Standards Publication MG1-1987; or

(ii) a motor incorporating the design elements described in clause (i), but is configured to incorporate one or more of the following variations—

(I) U-frame motor;

(II) NEMA Design C motor;

(III) close-coupled pump motor;

(IV) footless motor;

(V) vertical solid shaft normal thrust motor (as tested in a horizontal configuration);

(VI) 8-pole motor; or

(VII) poly-phase motor with a voltage rating of not more than 600 volts (other than 230 volts or 460 volts, or both, or can be operated on 230 volts or 460 volts, or both).

[(C)] *(B)* The term "definite purpose motor" means any motor designed in standard ratings with standard operating characteristics or standard mechanical construction for use under service conditions other than usual or for use on a particular type of application and which cannot be used in most general purpose applications.

[(D)] *(C)* The term "special purpose motor" means any motor, other than a general purpose motor or definite purpose motor, which has special operating characteristics or special mechanical construction, or both, designed for a particular application.

[(E)] *(D)* The term "open motor" means a motor having ventilating openings which permit passage of external cooling air over and around the windings of the machine.

[(F)] *(E)* The term "enclosed motor" means a motor so enclosed as to prevent the free exchange of air between the inside and outside of the case but not sufficiently enclosed to be termed airtight.

[(G)] *(F)* The term "small electric motor" means a NEMA general purpose alternating current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987.

[(H)] *(G)* The term "efficiency" when used with respect to an electric motor means the ratio of an electric motor's useful power output to its total power input, expressed in percentage.

[(I)] *(H)* The term "nominal full load efficiency" means the average efficiency of a population of motors of duplicate design as determined in accordance with NEMA Standards Publication MG1–1987.

* * * * * * *

[(22)] *(23)* SINGLE PACKAGE VERTICAL AIR CONDITIONER.—The term "single package vertical air conditioner" means air-cooled commercial package air conditioning and heating equipment that—

(A) * * *

* * * * * * *

[(23)] *(24)* SINGLE PACKAGE VERTICAL HEAT PUMP.—The term "single package vertical heat pump" means a single package vertical air conditioner that—

(A) * * *

* * * * * * *

(25) The term "luminaire" means a complete lighting unit consisting of one or more light sources and ballast(s), together

with parts designed to distribute the light, to position and protect such lamps, and to connect such light sources to the power supply.

(26) The term "outdoor luminaire" means a luminaire that is listed as suitable for wet locations pursuant to Underwriters Laboratories Inc. standard UL 1598 and is labeled as "Suitable for Wet Locations" consistent with section 410.4(A) of the National Electrical Code 2005, or is designed for roadway illumination and meets the requirements of Addendum A for IESNA TM-15-07: Backlight, Uplight, and Glare (BUG) Ratings, except for—

(A) luminaires designed for outdoor video display images that cannot be used in general lighting applications;

(B) portable luminaires designed for use at construction sites;

(C) luminaires designed for continuous immersion in swimming pools and other water features;

(D) seasonal luminaires incorporating solely individual lamps rated at 10 watts or less;

(E) luminaires designed to be used in emergency conditions that incorporate a means of charging a battery and a device to switch the power supply to emergency lighting loads automatically upon failure of the normal power supply;

(F) components used for repair of installed luminaries and that meet the requirements of section 342(h);

(G) a luminaire utilizing an electrode-less fluorescent lamp as the light source;

(H) decorative gas lighting systems;

(I) luminaires designed explicitly for lighting for theatrical purposes, including performance, stage, film production, and video production;

(J) luminaires designed as theme elements in theme/amusement parks and that cannot be used in most general lighting applications;

(K) luminaires designed explicitly for vehicular roadway tunnels designed to comply with ANSI/IESNA RP-22-05;

(L) luminaires designed explicitly for hazardous locations meeting UL Standard 844;

(M) searchlights;

(N) luminaires that are designed to be recessed into a building, and that cannot be used in most general lighting applications;

(O) a luminaire rated only for residential applications utilizing a light source or sources regulated under the amendments made by section 321 of the Energy Independence and Security Act of 2007 and with a light output no greater than 2,600 lumens;

(P) a residential pole-mounted luminaire that is not rated for commercial use utilizing a light source or sources meeting the efficiency requirements of section 231 of the Energy Independence and Security Act of 2007 and mounted on a post or pole not taller than 10.5 feet above ground and with a light output not greater than 2,600 lumens;

(Q) a residential fixture with E12 (Candelabra) bases that is rated for not more than 300 watts total; or

(R) a residential fixture with medium screw bases that is rated for not more than 145 watts.

(27) The term "outdoor high light outputlamp" means a lamp that—

(A) has a rated lumen output not less than 2601 lumens;

(B) is capable of being operated at a voltage not less than 110 volts and not greater than 300 volts, or driven at a constant current of 6.6 amperes;

(C) is not a Parabolic Aluminized Reflector lamp; and

(D) is not a J-type double-ended (T-3) halogen quartz lamp, utilizing R-7S bases, that is manufactured before January 1, 2015.

(28) The term "outdoor lighting control" means a device incorporated in a luminaire that receives a signal, from either a sensor (such as an occupancy sensor, motion sensor, or daylight sensor) or an input signal (including analog or digital signals communicated through wired or wireless technology), and can adjust the light level according to the signal.

* * * * * * *

STANDARDS

SEC. 342. (a) SMALL, LARGE, AND VERY LARGE COMMERCIAL PACKAGE AIR CONDITIONING AND HEATING EQUIPMENT, PACKAGED TERMINAL AIR CONDITIONERS AND HEAT PUMPS, WARM-AIR FURNACES, PACKAGED BOILERS, STORAGE WATER HEATERS, INSTANTANEOUS WATER HEATERS, AND UNFIRED HOT WATER STORAGE TANKS.—(1) * * *

* * * * * * *

(6) AMENDED ENERGY EFFICIENCY STANDARDS.—

(A) * * *

(B) RULE.—[If the Secretary]

(i) IN GENERAL.—If the Secretary makes a determination described in [clause (ii)(II)] *subparagraph (A)(ii)(II)* for a product described in [clause (i)] *subparagraph (A)(i)*, not later than 30 months after the date of publication of the amendment to the ASHRAE/IES Standard 90.1 for the product, the Secretary shall issue the rule establishing the amended standard.

(ii) FACTORS.—In determining whether a standard is economically justified for the purposes of subparagraph (A)(ii)(II), the Secretary shall, after receiving views and comments furnished with respect to the proposed standard, determine whether the benefits of the standard exceed the burden of the proposed standard by, to the maximum extent practicable, considering—

(I) the economic impact of the standard on the manufacturers and on the consumers of the products subject to the standard;

(II) the savings in operating costs throughout the estimated average life of the product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses

of, the products that are likely to result from the imposition of the standard;

(III) the total projected quantity of energy savings likely to result directly from the imposition of the standard;

(IV) any lessening of the utility or the performance of the products likely to result from the imposition of the standard;

(V) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;

(VI) the need for national energy conservation; and

(VII) other factors the Secretary considers relevant.

(iii) ADMINISTRATION.—

(I) ENERGY USE AND EFFICIENCY.—The Secretary may not prescribe any amended standard under this paragraph that increases the maximum allowable energy use, or decreases the minimum required energy efficiency, of a covered product.

(II) UNAVAILABILITY.—

(aa) IN GENERAL.—The Secretary may not prescribe an amended standard under this subparagraph if the Secretary finds (and publishes the finding) that interested persons have established by a preponderance of the evidence that a standard is likely to result in the unavailability in the United States in any product type (or class) of performance characteristics (including reliability, features, sizes, capacities, and volumes) that are substantially the same as those generally available in the United States at the time of the finding of the Secretary.

(bb) OTHER TYPES OR CLASSES.—The failure of some types (or classes) to meet the criterion established under this subclause shall not affect the determination of the Secretary on whether to prescribe a standard for the other types or classes.

(C) AMENDMENT OF STANDARD.—

(i) * * *

* * * * * * *

(iv) APPLICATION TO PRODUCTS.—[An amendment prescribed under this subsection] *Notwithstanding subparagraph (D), an amendment prescribed under this subparagraph* shall apply to products manufactured after a date that is the later of—

(I) * * *

* * * * * * *

[(iii)] *(vi)* CONSIDERATION OF PRICES AND OPERATING PATTERNS.—If the Secretary is considering revised

standards for air-cooled 3-phase central air conditioners and central air conditioning heat pumps with less 65,000 Btu per hour (cooling capacity), the Secretary shall use commercial energy prices and operating patterns in all analyses conducted by the Secretary.

* * * * * * *

(11) WARM AIR FURNACES.—Each warm air furnace with an input rating of 225,000 Btu per hour or more and manufactured after January 1, 2011, shall meet the following standard levels:

(A) GAS-FIRED UNITS.—

(i) Minimum thermal efficiency of 80 percent.

(ii) Include an interrupted or intermittent ignition device.

(iii) Have jacket losses not exceeding 0.75 percent of the input rating.

(iv) Have either power venting or a flue damper.

(B) OIL-FIRED UNITS.—

(i) Minimum thermal efficiency of 81 percent.

(ii) Have jacket losses not exceeding 0.75 percent of the input rating.

(iii) Have either power venting or a flue damper.

(b) ELECTRIC MOTORS.—(1) Except for definite purpose motors, special purpose motors, and those motors exempted by the Secretary under [paragraph (2)] *paragraph (3)*, each electric motor manufactured (alone or as a component of another piece of equipment) after the 60-month period beginning on the date of the enactment of this subsection, or in the case of an electric motor which requires listing or certification by a nationally recognized safety testing laboratory, after the 84-month period beginning on such date, shall have a nominal full load efficiency of not less than the following:

Number of poles	Nominal Full-Load Efficiency					
	Open Motors			Closed Motors		
	6	4	2	6	4	2
Motor Horsepower	.....	.....	.....	.....	.....	.....
1	80.0	82.5	.....	80.0	82.5	75.5
1.5	84.0	84.0	82.5	85.5	84.0	82.5
2	85.5	84.0	84.0	86.5	84.0	84.0
3	86.5	86.5	84.0	87.5	87.5	85.5
5	87.5	87.5	85.5	87.5	87.5	87.5
7.5	88.5	88.5	87.5	89.5	89.5	88.5
10	90.2	89.5	88.5	89.5	89.5	89.5
15	90.2	91.0	89.5	90.2	91.0	90.2
20	91.0	91.0	90.2	90.2	91.0	90.2
25	91.7	91.7	91.0	91.7	92.4	91.0
30	92.4	92.4	91.0	91.7	92.4	91.0
40	93.0	93.0	91.7	93.0	93.0	91.7
50	93.0	93.0	92.4	93.0	93.0	92.4
60	93.6	93.6	93.0	93.6	93.6	93.0
75	93.6	94.1	93.0	93.6	94.1	93.0
100	94.1	94.1	93.0	94.1	94.5	93.6
125	94.1	94.5	93.6	94.1	94.5	94.5

Number of poles	Nominal Full-Load Efficiency					
	Open Motors			Closed Motors		
	6	4	2	6	4	2
150	94.5	95.0	93.6	95.0	95.0	94.5
200	94.5	95.0	94.5	95.0	95.0	95.0

(2) STANDARDS EFFECTIVE BEGINNING DECEMBER 19, 2010.—

(A) IN GENERAL.—Except for definite purpose motors, special purpose motors, and those motors exempted by the Secretary under paragraph (3) and except as provided for in subparagraphs (B), (C), and (D), each electric motor manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-12.

(B) FIRE PUMP ELECTRIC MOTORS.—Except for those motors exempted by the Secretary under paragraph (3), each fire pump electric motor manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency that is not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-11.

(C) NEMA DESIGN B ELECTRIC MOTORS.—Except for those motors exempted by the Secretary under paragraph (3), each NEMA Design B electric motor with power ratings of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-11.

(D) MOTORS INCORPORATING CERTAIN DESIGN ELEMENTS.—Except for those motors exempted by the Secretary under paragraph (3), each electric motor described in section 340(13)(A)(ii) manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG-1 (2006) Table 12-11.

[(2)**]** *(3)*(A) The Secretary may, by rule, provide that the standards specified in **[**paragraph (1)**]** *paragraphs (1) and (2)* shall not apply to certain types or classes of electric motors if—

(i) * * *

* * * * * * *

(D) Manufacturers of types or classes of motors developed after the date of the enactment of this subsection to which standards under **[**paragraph (1)**]** *paragraphs (1) and (2)* would be applicable may petition the Secretary for exemptions from compliance with such standards based on the criteria specified in subparagraph (A).

[(3)**]** *(4)*(A) The Secretary shall publish a final rule no later than the end of the 24-month period beginning on the effective date of the standards established under paragraph (1) to determine if such

standards should be amended. Such rule shall provide that any amendment shall apply to electric motors manufactured on or after a date which is five years after the effective date of the standards established under paragraph (1).

* * * * * * *

(g) OUTDOOR LUMINAIRES.—

(1) Each outdoor luminaire manufactured on or after January 1, 2011, shall—

(A) have an initial luminaire efficacy of at least 50 lumens per watt; and

(B) be designed to use a light source with a lumen maintenance, calculated as mean rated lumens divided by initial lumens, of at least 0.6.

(2) Each outdoor luminaire manufactured on or after January 1, 2013, shall—

(A) have an initial luminaire efficacy of at least 70 lumens per watt; and

(B) be designed to use a light source with a lumen maintenance, calculated as mean rated lumens divided by initial lumens, of at least 0.6.

(3) Each outdoor luminaire manufactured on or after January 1, 2015, shall—

(A) have an initial luminaire efficacy of at least 80 lumens per watt; and

(B) be designed to use a light source with a lumen maintenance, calculated as mean rated lumens divided by initial lumens, of at least 0.65.

(4) In addition to the requirements of paragraphs (1) through (3), each outdoor luminaire manufactured on or after January 1, 2011, shall have the capability of producing at least two different light levels, including 100 percent and 60 percent of full lamp output as tested with the maximum rated lamp per UL1598 or the manufacturer's maximum specified for the luminaire under test.

(5)(A) Not later than January 1, 2017, the Secretary shall issue a final rule amending the applicable standards established in paragraphs (3) and (4) if technologically feasible and economically justified.

(B) A final rule issued under subparagraph (A) shall establish efficiency standards at the maximum level that is technically feasible and economically justified, as provided in subsections (o) and (p) of section 325. The Secretary may also, in such rulemaking, amend or discontinue the product exclusions listed in section 340(26)(A) through (P), or amend the lumen maintenance requirements in paragraph (3) if the Secretary determines that such amendments are consistent with the purposes of this Act.

(C) If the Secretary issues a final rule under subparagraph (A) establishing amended standards, the final rule shall provide that the amended standards apply to products manufactured on or after January 1, 2020, or one year after the date on which the final amended standard is published, whichever is later.

(h) OUTDOOR HIGH LIGHT OUTPUT LAMPS.—Each outdoor high light output lamp manufactured on or after January 1, 2012, shall have a lighting efficiency of at least 45 lumens per watt.

TEST PROCEDURES

SEC. 343. (a) PRESCRIPTION BY SECRETARY; REQUIREMENTS.—

(1) [TEST PROCEDURES.—

[(A) AMENDMENT.—] *TEST PROCEDURES.*—At least once every 7 years, the Secretary shall conduct an evaluation of each class of covered equipment and—

[(i)] *(A)* if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraphs (2) and (3), shall prescribe test procedures for the class in accordance with this section; or

[(ii)] *(B)* shall publish notice in the Federal Register of any determination not to amend a test procedure.

* * * * * * *

(10) OUTDOOR LIGHTING.—

(A) With respect to outdoor luminaires and outdoor high light output lamps, the test procedures shall be based upon the test procedures specified in illuminating engineering society procedures LM–79 as of March 1, 2009, and LM-31, and/or other appropriate consensus test procedures developed by the Illuminating Engineering Society or other appropriate consensus standards bodies.

(B) If illuminating engineering society procedure LM—79 is amended, the Secretary shall amend the test procedures established in subparagraph (A) as necessary to be consistent with the amended LM–79 test procedure, unless the Secretary determines, by rule, published in the Federal Register and supported by clear and convincing evidence, that to do so would not meet the requirements for test procedures under paragraph (2).

(C) The Secretary may revise the test procedures for outdoor luminaires or outdoor high light output lamps by rule consistent with paragraph (2), and may incorporate as appropriate consensus test procedures developed by the Illuminating Engineering Society or other appropriate consensus standards bodies.

* * * * * * *

ADMINISTRATION, PENALTIES, ENFORCEMENT, AND PREEMPTION

SEC. 345. (a) The provisions of section 326 (a), (b), and (d), the provisions of subsections (l) through (s) of section 325, and section 327 through 336 shall apply with respect to this part (other than the equipment specified in [subparagraphs (B) through (G)] *subparagraphs (B), (C), (D), (I), (J), and (K)* of section 340(1)) to the same extent and in the same manner as they apply in part B. In applying such provisions for the purposes of this part—

(1) * * *

* * * * * * *

(b)(1) The provisions of section 325(p)(5), section 326(a), (b), and (d), section 327(a), and sections 328 through 336 shall apply with

respect to the equipment specified in [subparagraphs (B) through (G)] *subparagraphs (B), (C), (D), (I), (J), and (K)* of section 340(1) to the same extent and in the same manner as they apply in [part A] *part B*. In applying such provisions for the purposes of such equipment, paragraphs (1), (2), (3), and (4) of subsection (a) shall apply.

* * * * * * *

(d)(1) Except as provided in paragraphs (2) and (3), section 327 shall apply with respect to very large commercial package air conditioning and heating equipment to the same extent and in the same manner as section 327 applies under [part A] *part B* on the date of enactment of this subsection.

* * * * * * *

(e)(1)(A) Subsections (a), (b), and (d) of section 326, subsections (m) through (s) of section 325, and sections 328 through 336 shall apply with respect to commercial refrigerators, freezers, and refrigerator-freezers to the same extent and in the same manner as those provisions apply under [part A] *part B*.

* * * * * * *

(2)(A) Section 327 shall apply to commercial refrigerators, freezers, and refrigerator-freezers for which standards are established under paragraphs (2) and (3) of section 342(c) to the same extent and in the same manner as those provisions apply under [part A] *part B* on the date of enactment of this subsection, except that any State or local standard issued before the date of enactment of this subsection shall not be preempted until the standards established under paragraphs (2) and (3) of section 342(c) take effect.

* * * * * * *

(3)(A) Section 327 shall apply to commercial refrigerators, freezers, and refrigerator-freezers for which standards are established under section 342(c)(4) to the same extent and in the same manner as the provisions apply under [part A] *part B* on the date of publication of the final rule by the Secretary, except that any State or local standard issued before the date of publication of the final rule by the Secretary shall not be preempted until the standards take effect.

* * * * * * *

(f)(1)(A)(i) Except as provided in clause (ii), section 327 shall apply to automatic commercial ice makers for which standards have been established under section 342(d)(1) to the same extent and in the same manner as the section applies under [part A] *part B* on the date of enactment of this subsection.

* * * * * * *

(2)(A)(i) Except as provided in clause (ii), section 327 shall apply to automatic commercial ice makers for which standards have been established under section 342(d)(2) to the same extent and in the same manner as the section applies under [part A] *part B* on the date of publication of the final rule by the Secretary.

* * * * * * *

(h) WALK-IN COOLERS AND WALK-IN FREEZERS.—

(1) COVERED TYPES.—

(A) RELATIONSHIP TO OTHER LAW.—

(i) IN GENERAL.—Except as otherwise provided in this subsection, section 327 shall apply to walk-in coolers and walk-in freezers for which standards have been established under paragraphs (1), (2), and (3) of section 342(f) to the same extent and in the same manner as the section applies under [part A] *part B* on the date of enactment of this subsection.

* * * * * * *

(3) CALIFORNIA.—Any standard issued in the State of California before January 1, 2011, under title 20 of the California Code of Regulations, that refers to walk-in coolers and walk-in freezers, for which standards have been established under paragraphs (1), (2), and (3) of section 342(f), shall not be preempted until the standards established under [section 342(f)(3)] *section 342(f)(4)* take effect.

(i)(1) Except as provided in paragraph (2), section 327 shall apply to outdoor luminaires to the same extent and in the same manner as the section applies under part B.

(2) Any State standard that is adopted on or before January 1, 2015, pursuant to a statutory requirement to adopt efficiency standards for reducing outdoor lighting energy use enacted prior to January 31, 2008, shall not be preempted.

* * * * * * *

SEC. 347. MOTOR EFFICIENCY REBATE PROGRAM.

(a) ESTABLISHMENT.—Not later than January 1, 2010, in accordance with subsection (b), the Secretary shall establish a program to provide rebates for expenditures made by entities—

(1) for the purchase and installation of a new electric motor that has a nominal full load efficiency that is not less than the nominal full load efficiency as defined in—

(A) table 12–12 of NEMA Standards Publication MG 1–2006 for random wound motors rated 600 volts or lower; or

(B) table 12–13 of NEMA Standards Publication MG 1–2006 for form wound motors rated 5000 volts or lower; and

(2) to replace an installed motor of the entity the specifications of which are established by the Secretary by a date that is not later than 90 days after the date of enactment of this section.

(b) REQUIREMENTS.—

(1) APPLICATION.—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including—

(A) demonstrated evidence that the entity purchased an electric motor described in subsection (a)(1) to replace an installed motor described in subsection (a)(2);

(B) demonstrated evidence that the entity—

(i) removed the installed motor of the entity from service; and

(ii) properly disposed the installed motor of the entity; and

(C) the physical nameplate of the installed motor of the entity.

(2) AUTHORIZED AMOUNT OF REBATE.—The Secretary may provide to an entity that meets each requirement under paragraph (1) a rebate the amount of which shall be equal to the product obtained by multiplying—

(A) the nameplate horsepower of the electric motor purchased by the entity in accordance with subsection (a)(1); and

(B) $25.00.

(3) PAYMENTS TO DISTRIBUTORS OF QUALIFYING ELECTRIC MOTORS.—To assist in the payment for expenses relating to processing and motor core disposal costs, the Secretary shall provide to the distributor of an electric motor described in subsection (a)(1), the purchaser of which received a rebate under this section, an amount equal to the product obtained by multiplying—

(A) the nameplate horsepower of the electric motor; and

(B) $5.00.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section, to remain available until expended—

(1) $80,000,000 for fiscal year 2011;

(2) $75,000,000 for fiscal year 2012;

(3) $70,000,000 for fiscal year 2013;

(4) $65,000,000 for fiscal year 2014; and

(5) $60,000,000 for fiscal year 2015.

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PART E—INDUSTRIAL ENERGY EFFICIENCY

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SEC. 373. WASTE ENERGY RECOVERY INCENTIVE GRANT PROGRAM.

(a) * * *

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(c) GRANTS TO STATES.—In the case of any State that has achieved 80 percent or more of waste heat recovery opportunities identified by the Secretary under this part, the [Administrator] *Secretary* shall make a 1-time grant to the State in an amount of not more than $1,000 per megawatt of waste-heat capacity recovered (or a thermal equivalent) to support State-level programs to identify and achieve additional energy efficiency.

* * * * * * *

(e) LIMITATION.—The Secretary shall not award grants to any person for a combined heat and power project or a waste heat recovery project [that qualifies for] *who elects to claim* specific Federal tax incentives for combined heat and power or for waste heat recovery *from that project*.

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SEC. 375. CLEAN ENERGY APPLICATION CENTERS.

(a) * * *

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(f) COORDINATION WITH CENTERS FOR ENERGY AND ENVIRONMENTAL KNOWLEDGE AND OUTREACH.—A Clean Energy Application

Center may serve as a Center for Energy and Environmental Knowledge and Outreach established pursuant to section 173 of the American Clean Energy and Security Act of 2009.

[(f)**]** *(g)* AUTHORIZATION.—There is authorized to be appropriated to carry out this section **[**$10,000,000 for each of fiscal years 2008 through 2012**]** *$30,000,000 for fiscal year 2010 and each fiscal year thereafter*.

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PART G—ENERGY CONSERVATION PROGRAM FOR SCHOOLS AND HOSPITALS

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SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY GRANTS AND LOANS FOR INSTITUTIONS.

(a) DEFINITIONS.—In this section:

(1) * * *

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(5) INSTITUTIONAL ENTITY.—The term "institutional entity" means an institution of higher education, a public school district, a local government, a municipal utility, **[**or a designee**]** *a not-for-profit hospital or not-for-profit inpatient health care facility, or a designated agent* of 1 of those entities.

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(c) GRANTS FOR ENERGY EFFICIENCY IMPROVEMENT AND ENERGY SUSTAINABILITY.—

(1) GRANTS.—

(A) * * *

* * * * * * *

[(C) MINIMUM FUNDING.—Not less than 50 percent of the total funding for all grants under this subsection shall be awarded in grants to institutions of higher education.**]**

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(f) GRANT AMOUNTS.—

(1) * * *

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(3) GRANTS FOR EFFICIENCY IMPROVEMENT AND ENERGY SUSTAINABILITY.—In the case of grants for efficiency improvement and energy sustainability under subsection (c), grant funds shall be available for not more than an amount equal to the lesser of—

(A) **[**$1,000,000**]** *$2,500,000*; or

* * * * * * *

(i) AUTHORIZATION.—

(1) GRANTS.—There is authorized to be appropriated for the cost of grants authorized in subsections (b), (c), and (d) **[**$250,000,000 for each of fiscal years 2009 through 2013**]** *$250,000,000 for each of fiscal years 2010 through 2015*, of

which not more than 5 percent may be used for administrative expenses.

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FEDERAL POWER ACT

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PART II—REGULATION OF ELECTRIC UTILITY COMPANIES ENGAGED IN INTERSTATE COMMERCE

* * * * * * *

SEC. 216A. TRANSMISSION PLANNING.

(a) FEDERAL POLICY.—

(1) OBJECTIVES.—It is the policy of the United States that regional electric grid planning should facilitate the deployment of renewable and other zero-carbon energy sources for generating electricity to reduce greenhouse gas emissions while ensuring reliability, reducing congestion, ensuring cyber-security, and providing for cost-effective electricity services throughout the United States.

(2) OPTIONS.—In addition to the policy under paragraph (1), it is the policy of the United States that regional electric grid planning to meet these objectives should take into account all significant demand-side and supply-side options, including energy efficiency, distributed generation, renewable energy and zero-carbon electricity generation technologies, smart-grid technologies and practices, demand response, electricity storage, voltage regulation technologies, high capacity conductors with at least 25 percent greater efficiency than traditional ACSR (aluminum stranded conductors steel reinforced) conductors, superconductor technologies, underground transmission technologies, and new conventional electric transmission capacity and corridors.

(b) PLANNING.—

(1) PLANNING PRINCIPLES.—Not later than 1 year after the date of enactment of this section, the Commission shall adopt, after notice and opportunity for comment, national electricity grid planning principles derived from the Federal policy established under subsection (a) to be applied in ongoing and future transmission planning that may implicate interstate transmission of electricity.

(2) REGIONAL PLANNING ENTITIES.—Not later than 3 months after the date of adoption by the Commission of national electricity grid planning principles pursuant to paragraph (1), entities that conduct or may conduct transmission planning pursuant to State or Federal law or regulation, including States, entities designated by States, public utility transmission providers, operators and owners, regional organizations, and electric utilities, and that are willing to incorporate the national electricity grid planning principles adopted by the Commission in their electric grid planning, shall identify themselves and the regions for which they propose to develop plans to the Commission.

(3) COORDINATION OF REGIONAL PLANNING ENTITIES.—The Commission shall encourage regional planning entities described under paragraph (2) to cooperate and coordinate across regions and to harmonize regional electric grid planning with planning in adjacent or overlapping jurisdictions to the maximum extent feasible. The Commission shall work with States, public utilities transmission providers, load-serving entities, transmission operators, and other organizations to resolve any conflict or competition among proposed planning entities in order to build consensus and promote the Federal policy established under subsection (a). The Commission shall seek to ensure that planning that is consistent with the national electricity grid planning principles adopted pursuant to paragraph (1) is conducted in all regions of the United States and the territories.

(4) RELATION TO EXISTING PLANNING POLICY.—In implementing the Federal policy established under subsection (a), the Commission shall—

(A) incorporate any ongoing planning efforts undertaken pursuant to section 217; and

(B) consult with and invite the participation of the Secretary of Energy in relationship to the Secretary's duties pursuant to section 216.

(5) ASSISTANCE.—

(A) IN GENERAL.—The Commission shall provide support to and participate in the regional grid planning processes conducted by regional planning entities. The Commission may provide planning resources and assistance as required or as requested by regional planning entities, including system data, cost information, system analysis, technical expertise, modeling support, dispute resolution services, and other assistance to regional planning entities, as appropriate.

(B) AUTHORIZATION.—There are authorized to be appropriated such sums as may be necessary to carry out this paragraph.

(6) CONFLICT RESOLUTION.—In the event that regional grid plans conflict, the Commission shall assist the regional planning entities in resolving such conflicts in order to achieve the objectives of the Federal policy established under subsection (a).

(7) SUBMISSION OF PLANS.—The Commission shall require regional planning entities to submit initial regional electric grid plans to the Commission not later than 18 months after the date the Commission promulgates national electricity grid planning principles pursuant to paragraph (1). Regional electric grid plans should, in general, be developed from sub-regional requirements and plans, including planning input reflecting individual utility service areas. Regional plans may then in turn be combined into larger regional plans, up to interconnection-wide and national plans, as appropriate and necessary as determined by the Commission. The Commission shall review such plans for consistency with the national grid planning principles and may return a plan to one or more planning entities for further consideration, along with the Commission's own recommendations for resolution of any conflict or for improvement.

To the extent practicable, all plans submitted to the Commission shall be public documents and available on the Commission's website.

(8) MULTI-REGIONAL MEETINGS.—As regional grid plans are submitted to the Commission, the Commission may convene multi-regional meetings to discuss regional grid plan consistency and integration, including requirements for multi-regional projects, and to resolve any conflicts that emerge from such multi-regional projects. The Commission shall provide its recommendations for eliminating any inter-regional conflicts.

(9) REPORT TO CONGRESS.—Not later than 3 years after the date of enactment of this section, the Commission shall provide a report to Congress containing the results of the regional grid planning process, including summaries of the adopted regional plans. The Commission shall provide an electronic version of its report on its website with links to all regional and sub-regional plans taken into account. The Commission shall note and provide its recommended resolution for any conflicts not resolved during the planning process. The Commission shall make any recommendations to Congress on the appropriate Federal role or support required to address the needs of the electric grid, including recommendations for addressing any needs that are beyond the reach of existing State and Federal authority.

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PART IV—CARBON MARKET ASSURANCE

SEC. 401. OVERSIGHT AND ASSURANCE OF CARBON MARKETS.

(a) DEFINITIONS.—In this section:

(1) CONTRACT OF SALE.—The term "contract of sale" includes sales, agreements of sale, and agreements to sell.

(2) COVERED ENTITY.—The term "covered entity" shall have the meaning given in section 700 of the Clean Air Act.

(3) FUTURE DELIVERY.—The term "future delivery" does not include any sale of any cash commodity for deferred shipment or delivery.

(4) OFFSET CREATION CONTRACT.—The term "offset creation contract" mean a written agreement for the origination and development of an offset project, and the related issuance of offset credits, pursuant to title VII of the Clean Air Act.

(5) REGULATED ALLOWANCE.—The term "regulated allowance" means any emission allowance, compensatory allowance, offset credit, or Federal renewable electricity credit established or issued under the American Clean Energy and Security Act of 2009.

(6) REGULATED ALLOWANCE DERIVATIVE.—The term "regulated allowance derivative" means an instrument that is, or includes, an instrument—

(A) which—

(i) is of the character of, or is commonly known to the trade as, a "put option", "call option", "privilege", "indemnity", "advance guaranty", "decline guaranty", or "swap agreement"; or

(ii) is a contract of sale for future delivery other than an offset creation contract; and

(B) the value of which, in whole or in part, is expressly linked to the price of a regulated allowance or another regulated allowance derivative.

(7) REGULATED INSTRUMENT.—The term "regulated instrument" means a regulated allowance or a regulated allowance derivative.

(b) REGULATED ALLOWANCE MARKET.—

(1) AUTHORITY.—The Commission shall promulgate regulations for the establishment, operation, and oversight of markets for regulated allowances not later than 18 months after the date of the enactment of this section, and from time to time thereafter as may be appropriate.

(2) REGULATIONS.—The regulations promulgated pursuant to paragraph (1) shall—

(A) provide for effective and comprehensive market oversight;

(B) prohibit fraud, market manipulation (including an entity's fraudulent or manipulative conduct with respect to regulated allowance derivatives that benefits the entity in regulated allowance markets), and excess speculation, and provide measures to limit unreasonable fluctuation in the prices of regulated allowances;

(C) facilitate compliance with title VII of the Clean Air Act by covered entities;

(D) ensure market transparency and recordkeeping deemed necessary and appropriate by the Commission to provide for efficient price discovery; prevention of fraud, market manipulation, and excess speculation; and compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978;

(E) as necessary, ensure that position limitations for individual market participants are established with respect to each class of regulated allowances;

(F) as necessary, ensure that margin requirements are established for each class of regulated allowances;

(G) provide for the formation and operation of a fair, orderly and liquid national market system that allows for the best execution in the trading of regulated allowances;

(H) limit or eliminate counterparty risks, market power concentration risks, and other risks associated with over-the-counter trading; and

(I) establish standards for qualification as, and operation of, trading facilities for regulated allowances;

(J) establish standards for qualification as, and operation of, clearing organizations for trading facilities for regulated allowances; and

(K) include such other requirements as necessary to preserve market integrity and facilitate compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978 and the regulations promulgated under such title and such section.

(3) ENFORCEMENT.—

(A) IN GENERAL.—If the Commission determines, after notice and an opportunity for a hearing on the record, that any entity has violated any rule or order issued by the Commission under this subsection, the Commission may issue an order—

(i) prohibiting the entity from trading on a trading facility for regulated allowances registered with the Commission, and requiring all such facilities to refuse the entity all privileges for such period as may be specified in the order;

(ii) if the entity is registered with the Commission in any capacity, suspending for a period of not more than 6 months, or revoking, the registration of the entity;

(iii) assessing the entity a civil penalty of not more than $1,000,000 per day per violation for as long as the violation continues (and in determining the amount of a civil penalty, the Commission shall take into account the nature and seriousness of the violation and the efforts to remedy the violation); and

(iv) requiring disgorgement of unjust profits, restitution to entities harmed by the violation as determined by the Commission, or both.

(B) AUTHORITY TO SUSPEND OR REVOKE REGISTRATION.—The Commission may suspend for a period of not more than 6 months, or revoke, the registration of a trading facility for regulated allowances or of a clearing organization registered by the Commission if, after notice and opportunity for a hearing on the record, the Commission finds that—

(i) the entity violated any rule or order issued by the Commission under this subsection; or

(ii) a director, officer, employee, or agent of the entity has violated any rule or order issued by the Commission under this subsection.

(C) CEASE AND DESIST PROCEEDINGS.—

(i) IN GENERAL.—If the Commission determines that any entity may be violating, may have violated, or may be about to violate any provision of this part, or any regulation promulgated by, or any restriction, condition, or order made or imposed by, the Commission under this Act, and if the Commission finds that the alleged violation or threatened violation, or the continuation of the violation, is likely to result in significant harm to covered entities or market participants, or significant harm to the public interest, the Commission may issue a temporary order requiring the entity—

(I) to cease and desist from the violation or threatened violation;

(II) to take such action as is necessary to prevent the violation or threatened violation; and

(III) to prevent, as the Commission determines to be appropriate—

(aa) significant harm to covered entities or market participants;

(bb) significant harm to the public interest; and

(cc) frustration of the ability of the Commission to conduct the proceedings or to redress the violation at the conclusion of the proceedings.

(ii) TIMING OF ENTRY.—An order issued under clause (i) shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing before entry would be impracticable or contrary to the public interest.

(iii) EFFECTIVE DATE.—A temporary order issued under clause (i) shall—

(I) become effective upon service upon the entity; and

(II) unless set aside, limited, or suspended by the Commission or a court of competent jurisdiction, remain effective and enforceable pending the completion of the proceedings.

(D) PROCEEDINGS REGARDING DISSIPATION OR CONVERSION OF ASSETS.—

(i) IN GENERAL.—In a proceeding involving an alleged violation of a regulation or order promulgated or issued by the Commission, if the Commission determines that the alleged violation or related circumstances are likely to result in significant dissipation or conversion of assets, the Commission may issue a temporary order requiring the respondent to take such action as is necessary to prevent the dissipation or conversion of assets.

(ii) TIMING OF ENTRY.—An order issued under clause (i) shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing before entry would be impracticable or contrary to the public interest.

(iii) EFFECTIVE DATE.—A temporary order issued under clause (i) shall—

(I) become effective upon service upon the respondent; and

(II) unless set aside, limited, or suspended by the Commission or a court of competent jurisdiction, remain effective and enforceable pending the completion of the proceedings.

(E) REVIEW OF TEMPORARY ORDERS.—

(i) APPLICATION FOR REVIEW.—At any time after a respondent has been served with a temporary cease-and-desist order pursuant to subparagraph (C) or order regarding the dissipation or conversion of assets pursuant to subparagraph (D), the respondent may apply to the Commission to have the order set aside, limited, or suspended.

(ii) NO PRIOR HEARING.—If a respondent has been served with a temporary order entered without a prior hearing of the Commission—

(I) the respondent may, not later than 10 days after the date on which the order was served, request a hearing on the application; and

(II) the Commission shall hold a hearing and render a decision on the application at the earliest practicable time.

(iii) JUDICIAL REVIEW.—

(I) IN GENERAL.—An entity shall not be required to submit a request for rehearing of a temporary order before seeking judicial review in accordance with this subparagraph.

(II) TIMING OF REVIEW.—Not later than 10 days after the date on which a respondent is served with a temporary cease-and-desist order entered with a prior hearing of the Commission, or 10 days after the date on which the Commission renders a decision on an application and hearing under clause (i) with respect to any temporary order entered without such a prior hearing—

(aa) the respondent may obtain a review of the order in a United States circuit court having jurisdiction over the circuit in which the respondent resides or has a principal place of business, or in the United States Court of Appeals for the District of Columbia Circuit, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order; and

(bb) the court shall have jurisdiction to enter such an order.

(III) NO PRIOR HEARING.—A respondent served with a temporary order entered without a prior hearing of the Commission may not apply to the applicable court described in subclause (II) except after a hearing and decision by the Commission on the application of the respondent under clauses (i) and (ii).

(iv) PROCEDURES.—Section 222 and Part III shall apply to—

(I) an application for review of an order under clause (i); and

(II) an order subject to review under clause (iii).

(v) NO AUTOMATIC STAY OF TEMPORARY ORDER.—The commencement of proceedings under clause (iii) shall not, unless specifically ordered by the court, operate as a stay of the order of the Commission.

(F) ACTIONS TO COLLECT CIVIL PENALTIES.—If any person fails to pay a civil penalty assessed under this subsection after an order assessing the penalty has become final and unappealable, the Commission shall bring an action to recover the amount of the penalty in any appropriate United States district court. In any such action, the validity or appropriateness of the final assessment order or judgment shall not be subject to review.

(4) TRANSACTION FEES.—

(A) IN GENERAL.—The Commission shall, in accordance with this paragraph, establish and collect transaction fees designed to recover the costs to the Federal Government of the supervision and regulation of regulated allowance markets and market participants, including related costs for enforcement activities, policy and rulemaking activities, administration, legal services, and international regulatory activities.

(B) INITIAL FEE RATE.—Each trading facility on or through which regulated allowances are transacted shall pay to the Commission a fee at a rate of not more than $15 per $1,000,000 of the aggregate dollar amount of sales of regulated allowances transacted through the facility.

(C) ANNUAL ADJUSTMENT OF FEE RATE.—The Commission shall, on an annual basis—

(i) assess the rate at which fees are to be collected as necessary to meet the cost recovery requirement in subparagraph (A); and

(ii) consistent with subparagraph (B), adjust the rate as necessary in order to meet the requirement.

(D) REPORT ON ADEQUACY OF FEES IN RECOVERING COSTS.—The Commission, shall, on an annual basis, report to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate on the adequacy of the transaction fees in providing funding for the Commission to regulate the regulated allowance markets.

(5) JUDICIAL REVIEW.—Judicial review of actions taken by the Commission under this subsection shall be pursuant to part III.

(6) INFORMATION-SHARING.—Within 6 months after a Federal agency with jurisdiction over regulated allowance derivatives is delegated authority pursuant to subsection (c)(1), the agency shall enter into a memorandum of understanding with the Commission relating to information sharing, which shall include provisions ensuring that information requests to markets within the respective jurisdiction of the agency are properly coordinated to facilitate, among other things, effective information-sharing while minimizing duplicative information requests, and provisions regarding the treatment of proprietary information.

(7) ADDITIONAL EMPLOYEES REPORT AND APPOINTMENT.—Within 18 months after the date of the enactment of this section, the Commission shall submit to the President, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Energy and Natural Resources of the Senate, a report that contains recommendations as to how many additional employees would be necessary to provide robust oversight and enforcement of the regulations promulgated under this subsection. As soon as practicable after the completion of the report, subject to appropriations, the Commission shall appoint the recommended number of additional employees for such purposes.

(c) DELEGATION OF AUTHORITY BY THE PRESIDENT.—

(1) DELEGATION.—The President, taking into consideration the recommendations of the interagency working group estab-

lished in subsection (d), shall delegate to members of the working group and the heads of other appropriate Federal agencies the authority to promulgate regulations for the establishment, operation, and oversight of all markets for regulated allowance derivatives.

(2) REGULATIONS.—The regulations promulgated pursuant to paragraph (1) shall—

(A) provide for effective and comprehensive market oversight;

(B) prohibit fraud, market manipulation, and excess speculation, and provide measures to limit unreasonable fluctuation in the prices of regulated allowance derivatives;

(C) facilitate compliance with title VII of the Clean Air Act by covered entities;

(D) ensure market transparency and recordkeeping necessary to provide for efficient price discovery; prevention of fraud, market manipulation, and excess speculation; and compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978;

(E) ensure that position limitations for individual market participants are established with respect to each regulated allowance derivative and aggregate position limitations for individual market participants are established with respect to all regulated allowance derivative markets;

(F) ensure that margin requirements are established for each regulated allowance derivative;

(G) provide for the formation and operation of a market system that allows for best execution in the trading of regulated allowance derivatives;

(H) to the extent the regulations deviate from the rule set forth in paragraph (4)(B), limit or eliminate counterparty risks, market power concentration risks, and other risks associated with over-the-counter trading, and promulgate reporting and market transparency rules for large traders;

(I) ensure that market participants do not evade position limits or otherwise undermine the integrity and effectiveness of the regulations promulgated under subparagraph (C) through participation in markets not subject to the position limits and regulations;

(J) establish standards, as necessary, for qualification as, and operation of, trading facilities for regulated allowance derivatives;

(K) establish standards, as necessary, for qualification as, and operation of, clearing organizations for trading facilities for regulated allowance derivatives;

(L) provide boards of trade designated as contract markets under the Commodity Exchange Act, and market participants, with an adequate transition period for compliance with any new regulatory requirements established under this paragraph;

(M) determine whether and to what extent offset creation contracts, to the extent incorporating regulated allowance derivatives, should be governed by the same regulations that apply to other regulated allowance derivatives; and

(N) include such other requirements as necessary to preserve market integrity and facilitate compliance with title VII of the Clean Air Act and section 610 of the Public Utility Regulatory Policies Act of 1978 and the regulations promulgated under such title and such section.

(3) DEADLINE.—The agencies authorized to promulgate regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives pursuant to paragraph (1) shall promulgate such regulations not later than 18 months after the date of the enactment of this section, and from time to time thereafter as may be appropriate.

(4) DEFAULT RULES.—

(A) An individual market participant, directly or in concert with another participant, shall not control more than 10 percent of the open interest in any regulated allowance derivative.

(B) All contracts for the purchase or sale of any regulated allowance derivative shall be executed on or through a board of trade designated as a contract market under the Commodity Exchange Act.

(C) To the extent that regulations promulgated under this subsection provide different rules with respect to the matters described in subparagraph (A) or (B), the regulations shall supersede subparagraph (A) or (B), as the case may be.

(d) WORKING GROUP.—

(1) ESTABLISHMENT.—Not later than 30 days after the date of the enactment of this section, the President shall establish an interagency working group on carbon market oversight, which shall include the Administrator of the Environmental Protection Agency and representatives of other relevant agencies, to make recommendations to the President regarding proposed regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives.

(2) REPORT.—Not later than 180 days after the date of the enactment of this section, and biennially thereafter, the interagency working group shall submit a written report to the President and Congress that includes its recommendations to the President regarding proposed regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives and any recommendations to Congress for statutory changes needed to ensure the establishment, operation, and oversight of transparent, fair, stable, and efficient markets for regulated allowance derivatives.

(e) ENFORCEMENT OF REGULATIONS.—Each Federal agency that promulgates under subsection (c) a regulation of conduct with respect to a regulated allowance derivative shall have the same authority to enforce compliance with the regulation as the Commodity Futures Trading Commission has to enforce compliance with any regulation of similar conduct with respect to a contract, agreement, or transaction over which the Commodity Futures Trading Commission has jurisdiction, except that any enforcement by the Federal Energy Regulatory Commission shall be pursuant to section 222 and Part III.

(f) PROHIBITION ON PRICE OR MARKET MANIPULATION, FRAUD, AND FALSE OR MISLEADING STATEMENTS OR REPORTS.—(1) It shall be a felony punishable by a fine of not more than $25,000,000 (or $5,000,000 in the case of a person who is an individual) or imprisonment for not more than 20 years, or both, together with the costs of prosecution for any person, directly or indirectly—

(A) in connection with a transaction involving a regulated instrument, to knowingly—

(i) use any manipulative or deceptive device or contrivance in violation of regulations promulgated pursuant to this section;

(ii) corner or attempt to corner the regulated instrument; or

(iii) cheat or defraud, or attempt to cheat or defraud, any other person;

(B) to knowingly deliver or cause to be delivered a false, misleading, or inaccurate report concerning information or conditions that affect or tend to affect the price of a regulated instrument;

(C) to knowingly make, or cause to be made, in an application, report, or document required to be filed under any regulation promulgated pursuant to this section, a statement which is false or misleading with respect to a material fact, or to omit any material fact required to be stated therein or necessary to make the statements therein not misleading; or

(D) to knowingly falsify, conceal, or cover up by any trick, scheme, or artifice a material fact, make any false, fictitious, or fraudulent statements or representations, or make or use any false writing or document that contains a false, fictitious, or fraudulent statement or entry, to an entity on or through which transactions in regulated instruments occur, or are settled or cleared, acting in furtherance of its official duties under this section or regulations promulgated under this section.

(2) If a person is found guilty of a felony established in paragraph (1), the person may be prohibited from holding or trading regulated instruments for a period of not more than 5 years pursuant to the regulations promulgated under this section, except that, if the person is a covered entity, the person shall be allowed to hold sufficient regulated allowances to meet its compliance obligations.

(g) RELATION TO STATE LAW.—Nothing in this section shall preclude, diminish or qualify any authority of a State or political subdivision thereof to adopt or enforce any unfair competition, antitrust, consumer protection, securities, commodities or any other law or regulation, except that no such State law or regulation may relieve any person of any requirement otherwise applicable under this section.

(h) MARKET REPORTS.—

(1) COLLECTION AND ANALYSIS OF INFORMATION.—The Commission, in conjunction with the Federal agency with jurisdiction over regulated allowance derivatives pursuant to subsection (c)(1), shall, on a continuous basis, collect and analyze the following information on the functioning of the markets for regulated instruments established under this part:

(A) The status of, and trends in, the markets, including prices, trading volumes, transaction types, and trading channels and mechanisms.

(B) Spikes, collapses, and volatility in prices of regulated instruments, and the causes therefor.

(C) The relationship between the market for regulated allowances and allowance derivatives, and the spot and futures markets for energy commodities, including electricity.

(D) Evidence of fraud or manipulation in any such market, the effects on any such market of any such fraud or manipulation (or threat of fraud or manipulation) that the Commission, in conjunction with the Federal agency, has identified, and the effectiveness of corrective measures undertaken by the Commission, in conjunction with the Federal agency, to address the fraud, manipulation, or threat.

(E) The economic effects of the markets, including to macro- and micro-economic effects of unexpected significant increases and decreases in the price of regulated instruments.

(F) Any changes in the roles, activities, or strategies of various market participants.

(G) Regional, industrial, and consumer responses to the markets, and energy investment responses to the markets.

(H) Any other issue related to the markets that the Commission, in conjunction with the entities, deems appropriate.

(2) ANNUAL REPORTS TO THE CONGRESS.—Not later than 1 month after the end of each calendar year, the Commission, in conjunction with the Federal agency, shall submit to the President, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Energy and Natural Resources of the Senate, and make available to the public, a report on the matters described in paragraph (1) with respect to the year, including recommendations for any administrative or statutory measures the Commission, in conjunction with the Federal agency, considers necessary to address any threats to the transparency, fairness, or integrity of the markets in regulated instruments.

SEC. 402. APPLICABILITY OF PART III PROVISIONS.

(a) SECTIONS 301, 304, AND 306.—Sections 301, 304, and 306 shall not apply to this part.

(b) SECTIONS 307, 309, AND 314.—Sections 307, 309, and 314 shall only apply to section 401(c) to the extent that the Commission is delegated authority to promulgate regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives (as defined in section 401). If the Commission is not delegated authority to promulgate regulations for the establishment, operation, and oversight of markets for regulated allowance derivatives, sections 307, 309, and 314 shall not apply to section 401(f) in the case of regulated allowance derivatives.

(c) SECTION 315.—In applying section 315(a) to this part, the words "person or entity" shall be substituted for the words "licensee or public utility". In applying section 315(b) to this part, the words "an entity" shall be substituted for the words "a licensee or public

utility" and the words "such entity" shall be substituted for the words "such licensee or public utility."

(d) SECTION 316.—Section 316(a) shall not apply to section 401(f).

ENERGY CONSERVATION AND PRODUCTION ACT

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CONTENTS

TITLE I—FEDERAL ENERGY ADMINISTRATION ACT AMENDMENTS AND RELATED MATTERS

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TITLE III—ENERGY CONSERVATION STANDARDS FOR NEW BUILDINGS

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[Sec. 304. Updating State building energy efficiency codes.]
Sec. 304. Greater energy efficiency in building codes.

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TITLE III—ENERGY CONSERVATION STANDARDS FOR NEW BUILDINGS

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[SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.

[(a) CONSIDERATION AND DETERMINATION RESPECTING RESIDENTIAL BUILDING ENERGY CODES.—(1) Not later than 2 years after the date of the enactment of the Energy Policy Act of 1992, each State shall certify to the Secretary that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise such residential building code provisions to meet or exceed CABO Model Energy Code, 1992.

[(2) The determination referred to in paragraph (1) shall be—

[(A) made after public notice and hearing;

[(B) in writing;

[(C) based upon findings included in such determination and upon the evidence presented at the hearing; and

[(D) available to the public.

[(3) Each State may, to the extent consistent with otherwise applicable State law, revise the provisions of its residential building code regarding energy efficiency to meet or exceed CABO Model Energy Code, 1992, or may decline to make such revisions.

[(4) If a State makes a determination under paragraph (1) that it is not appropriate for such State to revise its residential building code, such State shall submit to the Secretary, in writing, the reasons for such determination, and such statement shall be available to the public.

[(5)(A) Whenever CABO Model Energy Code, 1992, (or any successor of such code) is revised, the Secretary shall, not later than 12 months after such revision, determine whether such revision would improve energy efficiency in residential buildings. The Secretary shall publish notice of such determination in the Federal Register.

[(B) If the Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise such residential building code provisions to meet or exceed the revised code for which the Secretary made such determination.

[(C) Paragraphs (2), (3), and (4) shall apply to any determination made under subparagraph (B).

[(b) CERTIFICATION OF COMMERCIAL BUILDING ENERGY CODE UPDATES.—(1) Not later than 2 years after the date of the enactment of the Energy Policy Act of 1992, each State shall certify to the Secretary that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the requirements of ASHRAE Standard 90.1–1989.

[(2)(A) Whenever the provisions of ASHRAE Standard 90.1–1989 (or any successor standard) regarding energy efficiency in commercial buildings are revised, the Secretary shall, not later than 12 months after the date of such revision, determine whether such revision will improve energy efficiency in commercial buildings. The Secretary shall publish a notice of such determination in the Federal Register.

[(B)(i) If the Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency in accordance with the revised standard for which such determination was made. Such certification shall include a demonstration that the provisions of such State's commercial building code regarding energy efficiency meet or exceed such revised standard.

[(ii) If the Secretary makes a determination under subparagraph (A) that such revised standard will not improve energy efficiency in commercial buildings, State commercial building code provisions regarding energy efficiency shall meet or exceed ASHRAE Standard 90.1–1989, or if such standard has been revised, the last revised standard for which the Secretary has made an affirmative determination under subparagraph (A).

[(c) EXTENSIONS.—The Secretary shall permit extensions of the deadlines for the certification requirements under subsections (a) and (b) if a State can demonstrate that it has made a good faith effort to comply with such requirements and that it has made significant progress in doing so.

[(d) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes or to otherwise promote the design and construction of energy efficient buildings.

[(e) AVAILABILITY OF INCENTIVE FUNDING.—(1) The Secretary shall provide incentive funding to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes, including increasing and verifying compliance with such codes. In determining

whether, and in what amount, to provide incentive funding under this subsection, the Secretary shall consider the actions proposed by the State to implement the requirements of this section, to improve and implement residential and commercial building energy efficiency codes, and to promote building energy efficiency through the use of such codes.

[(2) Additional funding shall be provided under this subsection for implementation of a plan to achieve and document at least a 90 percent rate of compliance with residential and commercial building energy efficiency codes, based on energy performance—

[(A) to a State that has adopted and is implementing, on a statewide basis—

[(i) a residential building energy efficiency code that meets or exceeds the requirements of the 2004 International Energy Conservation Code, or any succeeding version of that code that has received an affirmative determination from the Secretary under subsection (a)(5)(A); and

[(ii) a commercial building energy efficiency code that meets or exceeds the requirements of the ASHRAE Standard 90.1–2004, or any succeeding version of that standard that has received an affirmative determination from the Secretary under subsection (b)(2)(A); or

[(B) in a State in which there is no statewide energy code either for residential buildings or for commercial buildings, to a local government that has adopted and is implementing residential and commercial building energy efficiency codes, as described in subparagraph (A).

[(3) Of the amounts made available under this subsection, the Secretary may use $500,000 for each fiscal year to train State and local officials to implement codes described in paragraph (2).

[(4)(A) There are authorized to be appropriated to carry out this subsection—

[(i) $25,000,000 for each of fiscal years 2006 through 2010; and

[(ii) such sums as are necessary for fiscal year 2011 and each fiscal year thereafter.

[(B) Funding provided to States under paragraph (2) for each fiscal year shall not exceed one-half of the excess of funding under this subsection over $5,000,000 for the fiscal year.]

SEC. 304. GREATER ENERGY EFFICIENCY IN BUILDING CODES.

(a) ENERGY EFFICIENCY TARGETS.—

(1) IN GENERAL.—Except as provided in paragraph (2) or (3), the national building code energy efficiency target for the national average percentage improvement of a building's energy performance when built to a code meeting the target shall be—

(A) effective on the date of enactment of the American Clean Energy and Security Act of 2009, 30 percent reduction in energy use relative to a comparable building constructed in compliance with the baseline code;

(B) effective January 1, 2014, for residential buildings, and January 1, 2015, for commercial buildings, 50 percent reduction in energy use relative to the baseline code; and

(C) effective January 1, 2017, for residential buildings, and January 1, 2018, for commercial buildings, and every

3 years thereafter, respectively, through January 1, 2029, and January 1, 2030, 5 percent additional reduction in energy use relative to the baseline code.

(2) CONSENSUS-BASED CODES.—If on any effective date specified in paragraph (1)(A), (B), or (C) a successor code to the baseline codes provides for greater reduction in energy use than is required under paragraph (1), the overall percentage reduction in energy use provided by that successor code shall be the national building code energy efficiency target.

(3) TARGETS ESTABLISHED BY SECRETARY.—The Secretary may by rule establish a national building code energy efficiency target for residential or commercial buildings achieving greater reductions in energy use than the targets prescribed in paragraph (1) or (2) if the Secretary determines that such greater reductions in energy use can be achieved with a code that is life cycle cost-justified and technically feasible. The Secretary may by rule establish a national building code energy efficiency target for residential or commercial buildings achieving a reduction in energy use that is greater than zero but less than the targets prescribed in paragraph (1) or (2) if the Secretary determines that such lesser target is the maximum reduction in energy use that can be achieved through a code that is life cycle cost-justified and technically feasible.

(4) ADDITIONAL REDUCTIONS IN ENERGY USE.—Effective on January 1, 2033, and once every 3 years thereafter, the Secretary shall determine, after notice and opportunity for comment, whether further energy efficiency building code improvements for residential or commercial buildings, respectively, are life cycle cost-justified and technically feasible, and shall establish updated national building code energy efficiency targets that meet such criteria.

(5) ZERO-NET-ENERGY BUILDINGS.—In setting targets under this subsection, the Secretary shall consider ways to support the deployment of distributed renewable energy technology, and shall seek to achieve the goal of zero-net-energy commercial buildings established in section 422 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17082).

(6) BASELINE CODE.—For purposes of this section, the term "baseline code" means—

(A) for residential buildings, the 2006 International Energy Conservation Code (IECC) published by the International Code Council; and

(B) for commercial buildings, the code published in ASHRAE Standard 90.1-2004.

(7) CONSULTATION.—In establishing the targets required by this section, the Secretary shall consult with the Director of the National Institute of Standards and Technology.

(b) NATIONAL ENERGY EFFICIENCY BUILDING CODES.—

(1) REQUIREMENT.—

(A) IN GENERAL.—There shall be established national energy efficiency building codes under this subsection, for residential and commercial buildings, sufficient to meet each of the national building code energy efficiency targets established under subsection (a), not later than the date that is

one year after the deadline for establishment of each such target.

(B) EXISTING CODE.—If the Secretary finds prior to the date one year after the deadline for establishing a target that one or more energy efficiency building codes published by a recognized consensus-based code development organization meet or exceed the established target, the Secretary shall select the code that meets the target with the highest efficiency in the most cost-effective manner, and such code shall be the national energy efficiency building code.

(C) REQUIREMENT TO ESTABLISH CODE.—If the Secretary does not make a finding under subparagraph (B), the national energy efficiency building code shall be established by rule by the Secretary under paragraph (2).

(2) ESTABLISHMENT BY SECRETARY.—

(A) PROCEDURE.—In order to establish a national energy efficiency building code as required under paragraph (1)(C), the Secretary shall—

(i) not later than six months prior to the effective date for each target, review existing and proposed codes published or under review by recognized consensus-based code development organizations;

(ii) determine the percentage of energy efficiency improvements that are or would be achieved in such published or proposed code versions relative to the target;

(iii) propose improvements to such published or proposed code versions sufficient to meet or exceed the target; and

(iv) unless a finding is made under paragraph (1)(B) with respect to a code published by a recognized consensus-based code development organization, adopt a code that meets or exceeds the relevant national building code energy efficiency target by not later than one year after the effective date of such target.

(B) CALCULATIONS.—Each code established by the Secretary under this paragraph shall be set at the maximum level the Secretary determines is life cycle cost-justified and technically feasible, in accordance with the following:

(i) SAVINGS CALCULATIONS.—Calculations of energy savings shall take into account the typical lifetimes of different products, measures, and system configurations.

(ii) COST-EFFECTIVENESS CALCULATIONS.—Calculations of life cycle cost-effectiveness shall be based on life cycle cost methods and procedures under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254), but shall incorporate to the extent feasible externalities such as impacts on climate change and on peak energy demand that are not already incorporated in assumed energy costs.

(C) CONSIDERATIONS.—In developing a national energy efficiency building code under this paragraph, the Secretary shall consider—

(i) for residential codes—

(I) residential building standards published or proposed by ASHRAE;

(II) residential building codes published or proposed in the International Energy Conservation Code (IECC);

(III) data from the Residential Energy Services Network (RESNET) on compliance measures utilized by consumers to qualify for the residential energy efficiency tax credits established under the Energy Policy Act of 2005;

(IV) data and information from the Department of Energy's Building America Program;

(V) data and information from the Energy Star New Homes program;

(VI) data and information from the New Building Institute and similar organizations; and

(VII) standards for practices and materials to achieve cool roofs in residential buildings, taking into consideration reduced air conditioning energy use as a function of cool roofs, the potential reduction in global warming from increased solar reflectance from buildings, and cool roofs criteria in State and local building codes and in national and local voluntary programs; and

(ii) for commercial codes—

(I) commercial building standards proposed by ASHRAE;

(II) commercial building codes proposed in the International Energy Conservation Code (IECC);

(III) the Core Performance Criteria published by the New Buildings Institute;

(IV) data and information developed by the Director of the Commercial High-Performance Green Building Office of the Department of Energy and any public-private partnerships established under that Office;

(V) data and information from the Energy Star for Buildings program;

(VI) data and information from the New Building Institute, RESNET, and similar organizations; and

(VII) standards for practices and materials to achieve cool roofs in commercial buildings, taking into consideration reduced air conditioning energy use as a function of cool roofs, the potential reduction in global warming from increased solar reflectance from buildings, and cool roofs criteria in State and local building codes and in national and local voluntary programs.

(D) CONSULTATION.—In establishing any national energy efficiency building code required by this section, the Secretary shall consult with the Director of the National Institute of Standards and Technology.

(3) CONSENSUS STANDARD ASSISTANCE.—(A) To support the development of consensus standards that may provide the basis

for national energy efficiency building codes, minimize duplication of effort, encourage progress through consensus, and facilitate the development of greater building efficiency, the Secretary shall provide assistance to recognized consensus-based code development organizations to develop, and where the relevant code has been adopted as the national code, disseminate consensus based energy efficiency building codes as provided in this paragraph.

(B) Upon a finding by the Secretary that a code developed by such an organization meets a target established under subsection (a), the Secretary shall—

(i) send notice of the Secretary's finding to all duly authorized or appointed State and local code agencies; and

(ii) provide sufficient support to such an organization to make the code available on the Internet, or to accomplish distribution of such code to all such State and local code agencies at no cost to the State and local code agencies.

(C) The Secretary may contract with such an organization and with other organizations with expertise on codes to provide training for State and local code officials and building inspectors in the implementation and enforcement of such code.

(D) The Secretary may provide grants and other support to such an organization to—

(i) develop appropriate refinements to such code; and

(ii) support analysis of options for improvements in the code to meet the next scheduled target.

(4) CODE DEVELOPED BY SECRETARY.—If the Secretary establishes a national energy efficiency building code under paragraph (2), the Secretary shall—

(A) to the extent that such code is based on a prior code developed by a recognized consensus-based code development organization, negotiate and provide appropriate compensation to such organization for the use of the code materials that remain in the code established by the Secretary; and

(B) disseminate the national energy efficiency building codes to State and local code officials, and support training and provide guidance and technical assistance to such officials as appropriate.

(c) STATE ADOPTION OF ENERGY EFFICIENCY BUILDING CODES.—

(1) REQUIREMENT.—Not later than 1 year after a national energy efficiency building code for residential or commercial buildings is established or revised under subsection (b), each State—

(A) shall—

(i) review and update the provisions of its building code regarding energy efficiency to meet or exceed the target met in the new national code, to achieve equivalent or greater energy savings;

(ii) document, where local governments establish building codes, that local governments representing not less than 80 percent of the State's urban population have adopted the new national code, or have adopted local codes that meet or exceed the target met in the

new national code to achieve equivalent or greater energy savings; or

(iii) adopt the new national code; and

(B) shall provide a certification to the Secretary demonstrating that energy efficiency building code provisions that apply throughout the State meet or exceed the target met by the new national code, to achieve equivalent or greater energy savings.

(2) CONFIRMATION.—

(A) REQUIREMENT.—Not later than 90 days after a State certification is provided under paragraph (1)(B), the Secretary shall determine whether the State's energy efficiency building code provisions meet the requirements of this subsection.

(B) ACCEPTANCE BY SECRETARY.—If the Secretary determines under subparagraph (A) that the State's energy efficiency building code or codes meet the requirements of this subsection, the Secretary shall accept the certification.

(C) DEFICIENCY NOTICE.—If the Secretary determines under subparagraph (A) that the State's building code or codes do not meet the requirements of this subsection, the Secretary shall identify the deficiency in meeting the national building code energy efficiency target, and, to the extent possible, indicate areas where further improvement in the State's code provisions would allow the deficiency to be eliminated.

(D) REVISION OF CODE AND RECERTIFICATION.—A State may revise its code or codes and submit a recertification under paragraph (1)(B) to the Secretary at any time.

(3) COMPLIANT CODE.—For the purposes of meeting the target described in subsection (a)(1)(A) for residential buildings, a State that adopts the code represented in California's Title 24-2009 by the date two years after the date of enactment of the American Clean Energy and Security Act of 2009 shall be considered to have met the requirements of this subsection for the applicable period.

(d) APPLICATION OF NATIONAL CODE TO STATE AND LOCAL JURISDICTIONS.—

(1) IN GENERAL.—Upon the expiration of 1 year after a national energy efficiency building code is established under subsection (b), in any jurisdiction where the State has not had a certification relating to that code accepted by the Secretary under subsection (c)(2)(B), and the local government has not had a certification relating to that code accepted by the Secretary under subsection (e)(6)(B), the national code shall become the applicable energy efficiency building code for such jurisdiction.

(2) STATE LEGISLATIVE ADOPTION.—In a State in which the relevant building energy code is adopted legislatively, the deadline in paragraph (1) shall not be earlier than 1 year after the first day that the legislature meets following establishment of a national energy efficiency building code.

(3) VIOLATIONS.—Violations of this section shall be defined as follows:

(A) If the building is subject to the requirements of a State energy efficiency building code with respect to which a certification has been accepted by the Secretary under subsection (c)(2)(B) or a local energy efficiency building code with respect to which a certification has been accepted by the Secretary pursuant to subsection (e)(6)(B), a violation shall be determined pursuant to the relevant provisions of the State or local code.

(B) If the building is subject to the requirements of a national energy efficiency building code adopted under subsection (c)(1)(A)(i) or made applicable under paragraph (1) of this subsection, a violation shall be defined by the Secretary pursuant to subsection (g).

(e) STATE ENFORCEMENT OF ENERGY EFFICIENCY BUILDING CODES.—

(1) IN GENERAL.—Each State, or where applicable under State law each local government, shall implement and enforce applicable State or local codes with respect to which a certification was accepted by the Secretary under subsection (c)(2)(B) or paragraph (6)(B) of this subsection, or the national energy efficiency building codes, as provided in this subsection.

(2) STATE CERTIFICATION.—Not later than 2 years after the date of a certification under subsection (c)(1) or the establishment of a national energy efficiency building code under subsection (b), each State shall certify that it has—

(A) achieved compliance with—

(i) State codes, or, as provided under State law, local codes, with respect to which a certification was accepted by the Secretary under subsection (c)(2)(B); or

(ii) the national energy efficiency building code, as applicable; or

(B) for any certification submitted within 7 years after the date of enactment of the American Clean Energy and Security Act of 2009, made significant progress toward achieving such compliance.

(3) ACHIEVING COMPLIANCE.—A State shall be considered to achieve compliance with a code described in paragraph (2)(A) if at least 90 percent of new and substantially renovated building space in that State in the preceding year upon inspection meets the requirements of the code. A certification under paragraph (2) shall include documentation of the rate of compliance based on—

(A) independent inspections of a random sample of the new and substantially renovated buildings covered by the code in the preceding year; or

(B) an alternative method that yields an accurate measure of compliance as determined by the Secretary.

(4) SIGNIFICANT PROGRESS.—A State shall be considered to have made significant progress toward achieving compliance with a code described in paragraph (2)(A) if—

(A) the State has developed a plan, including for hiring enforcement staff, providing training, providing manuals and checklists, and instituting enforcement programs, designed to achieve full compliance within 5 years after the date of the adoption of the code;

(B) the State is taking significant, timely, and measurable action to implement that plan;

(C) the State has not reduced its expenditures for code enforcement; and

(D) at least 50 percent of new and substantially renovated building space in the State in the preceding year upon inspection meets the requirements of the code.

(5) SECRETARY'S DETERMINATION.—Not later than 90 days after a State certification under paragraph (2), the Secretary shall determine whether the State has demonstrated that it has complied with the requirements of this subsection, including accurate measurement of compliance, or that it has made significant progress toward compliance. If such determination is positive, the Secretary shall accept the certification. If the determination is negative, the Secretary shall identify the areas of deficiency.

(6) OUT OF COMPLIANCE.—

(A) IN GENERAL.—Any State for which the Secretary has not accepted a certification under paragraph (5) by a deadline established under this subsection is out of compliance with this section.

(B) LOCAL COMPLIANCE.—In any State that is out of compliance with this section as provided in subparagraph (A), a local government may be in compliance with this section by meeting all certification requirements applicable to the State.

(C) NONCOMPLIANCE.—Any State that is not in compliance with this section, as provided in subparagraph (A), shall, until the State regains such compliance, be ineligible to receive—

(i) emission allowances pursuant to subsection (h)(1);

(ii) Federal funding in excess of that State's share (calculated according to the allocation formula in section 363 of the Energy Policy and Conservation Act (42 U.S.C. 6323)) of $125,000,000 each year; and

(iii) for—

(I) the first year for which the State is out of compliance, 25 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009;

(II) the second year for which the State is out of compliance, 50 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009;

(III) the third year for which the State is out of compliance, 75 percent of any additional funding or other items of monetary value otherwise provided under the American Clean Energy and Security Act of 2009; and

(IV) the fourth and subsequent years for which the State is out of compliance, 100 percent of any additional funding or other items of monetary

value otherwise provided under the American Clean Energy and Security Act of 2009.

(f) FEDERAL ENFORCEMENT.—Where a State fails and local governments in that State also fail to enforce the applicable State or national energy efficiency building codes, the Secretary shall enforce such codes, as follows:

(1) The Secretary shall establish, by rule, within 2 years after the date of enactment of the American Clean Energy and Security Act of 2009, an energy efficiency building code enforcement capability.

(2) Such enforcement capability shall be designed to achieve 90 percent compliance with such code in any State within 1 year after the date of the Secretary's determination that such State is out of compliance with this section.

(3) The Secretary may set and collect reasonable inspection fees to cover the costs of inspections required for such enforcement. Revenue from fees collected shall be available to the Secretary to carry out the requirements of this section upon appropriation.

(g) ENFORCEMENT PROCEDURES.—The Secretary shall propose and, not later than three years after the date of enactment of the American Clean Energy and Security Act of 2009, shall determine and adopt by rule what shall constitute violations of the energy efficiency building codes to be enforced pursuant to this section, and the penalties that shall apply to violators. To the extent that the Secretary determines that the authority to adopt and impose such violations and penalties by rule requires further statutory authority, the Secretary shall report such determination to Congress as soon as such determination is made, but not later than one year after the enactment of the American Clean Energy and Security Act of 2009.

(h) FEDERAL SUPPORT.—

(1) ALLOWANCE ALLOCATION FOR STATE COMPLIANCE.—For each vintage year from 2012 through 2050, the Administrator shall distribute allowances allocated pursuant to section 782(g)(2) of the Clean Air Act to the SEED Account for each State that the Secretary identifies as a State from which he has accepted the State's certification under subsection (e)(5) for compliance with the then current national energy efficiency building codes. Such allowances shall be distributed according to a formula established by the Secretary as follows:

(A) One-fifth in an equal amount to each of the 50 States and United States territories.

(B) Two-fifths as a function of the relative energy use in all buildings in each State in the most recent year for which data is available.

(C) Two-fifths based on the number of building construction starts recorded in each State, the number of new building permits applied for in each State, or other relevant available data indicating building activity in each State, in the judgment of the Secretary, for the year prior to the year of the distribution.

(2) ALLOWANCE ALLOCATION TO LOCAL GOVERNMENTS.—In the instance that the Secretary certifies that one or more local governments are in compliance with this section pursuant to subsection (e)(6)(B), the Administrator shall provide to each such

local government the portion of the emission allowances that would have been provided to that State as a function of the population of that locality as a proportion of the population of that State as a whole.

(3) UNALLOCATED ALLOWANCES.—To the extent that allowances are not provided to State or local governments for lack of certification in any year, those allowances shall be added to the amount provided to those States and local governments that are certified as eligible in that year.

(4) USE OF ALLOWANCES.—Each State or each local government shall use such emission allowances as it receives pursuant to this section exclusively for the purposes of this section, including covering a reasonable portion of the costs of the development, adoption, implementation, and enforcement of a State or local energy efficiency building code with respect to which a certification is accepted by the Secretary under subsection (c)(2)(B) or subsection (e)(6)(B), or the national energy efficiency building code. In a State where local governments provide building code enforcement, a minimum of 50 percent of the allowance value received pursuant to this section shall be distributed to local governments as a function of the relative populations of such localities.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy $100,000,000 for each of fiscal years 2010 through 2020 and such sums thereafter as may be necessary to support the purposes of this section.

(j) ANNUAL REPORTS BY SECRETARY.—The Secretary shall annually submit to Congress, and publish in the Federal Register, a report on—

(1) the status of national building energy efficiency codes;

(2) the status of energy efficiency building code adoption and compliance in the States;

(3) the implementation of this section; and

(4) impacts of past action under this section, and potential impacts of further action, on lifetime energy use by buildings, including resulting energy and cost savings.

SEC. 305. FEDERAL BUILDING ENERGY EFFICIENCY STANDARDS.

(a)(1) * * *

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(3)(A) * * *

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(D) Not later than 1 year after the date of enactment of the Energy Independence and Security Act of 2007, the Secretary shall establish, by rule, revised Federal building energy efficiency performance standards that require that:

(i) For new Federal buildings and Federal buildings undergoing major renovations, with respect to which the Administrator of General Services is required to transmit a prospectus to Congress under section 3307 of title 40, United States Code, in the case of public buildings (as defined in section 3301 of title 40, United States Code), or of at least $2,500,000 in costs adjusted annually for inflation for other buildings:

(I) The buildings shall be designed so that the fossil fuel-generated energy consumption of the buildings is reduced,

as compared with such energy consumption by a similar building [in fiscal year 2003 (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency)] *as measured by the calendar year 2003 Commercial Buildings Energy Consumption Survey or the calendar year 2005 Residential Energy Consumption Survey data from the Energy Information Administration*, by the percentage specified in the following table:

[Fiscal Year] ***Calendar Year***	**Percentage Reduction**
2010	55
2015	65
2020	80
2025	90
2030	100.

[(II) Upon petition]

(II) DOWNWARD ADJUSTMENT OF NUMERIC REQUIREMENT.—

(aa) IN GENERAL.—On petition by an agency subject to this subparagraph, the Secretary may adjust the applicable numeric requirement under subclause (I) downward with respect to a specific building, if the head of the agency designing the building certifies in writing that meeting such requirement would be technically impracticable in light of the agency's specified functional needs for that building and the Secretary concurs with the agency's conclusion. [This subclause shall not apply to the General Services Administration.]

(bb) EXCEPTIONS TO REQUIREMENT FOR CONCURRENCE OF SECRETARY.—

(AA) IN GENERAL.—The requirement to petition and obtain the concurrence of the Secretary under this subclause shall not apply to any Federal building with respect to which the Administrator of General Services is required to transmit a prospectus to Congress under section 3307 of title 40, United States Code, or to any other Federal building designed, constructed, or renovated by the Administrator if the Administrator certifies, in writing, that meeting the applicable numeric requirement under subclause (I) with respect to the Federal building would be technically impracticable in light of the specific functional needs for the building.

(BB) ADJUSTMENT.—In the case of a building described in subitem (AA), the Administrator may adjust the applicable numeric requirement of subclause (I) downward with respect to the building.

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TITLE IV—ENERGY CONSERVATION AND RENEWABLE-RESOURCE ASSISTANCE FOR EXISTING BUILDINGS

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PART A—WEATHERIZATION ASSISTANCE FOR LOW-INCOME PERSONS

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AUTHORIZATION OF APPROPRIATIONS

SEC. 422. For the purpose of carrying out the weatherization program under this part, there are authorized to be appropriated—

(1) * * *

* * * * * * *

(5) $1,400,000,000 for fiscal year 2012.**[.]**

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INSPECTOR GENERAL ACT OF 1978

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REQUIREMENTS FOR FEDERAL ENTITIES AND DESIGNATED FEDERAL ENTITIES

SEC. 8G. (a) Notwithstanding section 12 of this Act, as used in this section—

(1) * * *

(2) the term "designated Federal entity" means Amtrak, the Appalachian Regional Commission, the Board of Governors of the Federal Reserve System, the Board for International Broadcasting, **[**the Commodity Futures Trading Commission,**]** the Consumer Product Safety Commission, the Corporation for Public Broadcasting, the Equal Employment Opportunity Commission, the Farm Credit Administration, the Federal Communications Commission, the Federal Deposit Insurance Corporation , the Federal Election Commission, the Election Assistance Commission, the Federal Housing Finance Board, the Federal Labor Relations Authority, the Federal Maritime Commission, the Federal Trade Commission, the Legal Services Corporation, the National Archives and Records Administration, the National Credit Union Administration, the National Endowment for the Arts, the National Endowment for the Humanities, the National Labor Relations Board, the National Science Foundation, the Panama Canal Commission, the Peace Corps, the Pension Benefit Guaranty Corporation, the Securities and Exchange Commission, the Smithsonian Institution, the United States International Trade Commission, the Postal Regulatory Commission, and the United States Postal Service;

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DEFINITIONS

SEC. 12. As used in this Act—

(1) the term "head of the establishment" means the Secretary of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Develop-

ment, the Interior, Labor, State, Transportation, Homeland Security, or the Treasury; the Attorney General; the Administrator of the Agency for International Development, Environmental Protection, General Services, National Aeronautics and Space, or Small Business, or Veterans' Affairs; the Director of the Federal Emergency Management Agency, or the Office of Personnel Management; the Chairman of the Nuclear Regulatory Commission or the Railroad Retirement Board; the Chairperson of the Thrift Depositor Protection Oversight Board; the Chief Executive Officer of the Corporation for National and Community Service; the Administrator of the Community Development Financial Institutions Fund; the chief executive officer of the Resolution Trust Corporation; the Chairperson of the Federal Deposit Insurance Corporation; the Commissioner of Social Security, Social Security Administration; the Director of the Federal Housing Finance Agency; the Board of Directors of the Tennessee Valley Authority; the President of the Export-Import Bank; [or the Federal Cochairpersons of the Commissions established under section 15301 of title 40, United States Code;] *the Administrator of the Clean Energy Deployment Administration; the Federal Cochairpersons of the Commissions established under section 15301 of title 40, United States Code; or the Chairman of the Commodity Futures Trading Commission;* as the case may be;

(2) the term "establishment" means the Department of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, Homeland Security, or the Treasury; the Agency for International Development, the Community Development Financial Institutions Fund, the Environmental Protection Agency, the Federal Emergency Management Agency, the General Services Administration, the National Aeronautics and Space Administration, the Nuclear Regulatory Commission, the Office of Personnel Management, the Railroad Retirement Board, the Resolution Trust Corporation, the Federal Deposit Insurance Corporation, the Small Business Administration, the Corporation for National and Community Service, or the Veterans' Administration, the Social Security Administration, the Federal Housing Finance Agency, the Tennessee Valley Authority, the Export-Import Bank, [or the Commissions established under section 15301 of title 40, United States Code,] *the Clean Energy Deployment Administration, the Commissions established under section 15301 of title 40, United States Code, or the Commodity Futures Trading Commission,* as the case may be;

* * * * * * *

SECTION 507 OF THE ENERGY POLICY ACT OF 1992

SEC. 507. FLEET REQUIREMENT PROGRAM.

(a) * * *

* * * * * * *

(o) MANDATORY STATE FLEET PROGRAMS.—(1) * * *

* * * * * * *

(3) The Secretary shall revise the rules under this subsection with respect to the types of alternative fueled vehicles required for compliance with this subsection to ensure those rules are consistent with any guidance issued pursuant to section 303 of this Act.

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NATIONAL ENERGY CONSERVATION POLICY ACT

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TITLE I—GENERAL PROVISIONS

SEC. 101. SHORT TITLE AND TABLE OF CONTENTS.

(a) * * *

(b) TABLE OF CONTENTS.—

TITLE I—GENERAL PROVISIONS

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TITLE V—FEDERAL ENERGY INITIATIVES

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[Sec. 543. Energy management requirements.]

Sec. 543. Energy efficient information and communications technologies.

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TITLE V—FEDERAL ENERGY INITIATIVE

* * * * * * *

PART 3—FEDERAL ENERGY MANAGEMENT

* * * * * * *

[SEC. 543. ENERGY MANAGEMENT REQUIREMENTS.

[(a) ENERGY PERFORMANCE REQUIREMENT FOR FEDERAL BUILDINGS.—(1) Subject to paragraph (2), each agency shall apply energy conservation measures to, and shall improve the design for the construction of, the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency in fiscal years 2006 through 2015 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year 2003, by the percentage specified in the following table:

[Fiscal Year	Percentage Reduction
2006	2
2007	4
2008	9
2009	12
2010	15
2011	18
2012	21
2013	24

[Fiscal Year	Percentage Reduction
2014	27
2015	30.

[(2) An agency may exclude from the requirements of paragraph (1) any building, and the associated energy consumption and gross square footage, in which energy intensive activities are carried out. Each agency shall identify and list in each report made under section 548(a) the buildings designated by it for such exclusion.

[(3) Not later than December 31, 2014, the Secretary shall review the results of the implementation of the energy performance requirement established under paragraph (1) and submit to Congress recommendations concerning energy performance requirements for fiscal years 2016 through 2025.

[(b) ENERGY MANAGEMENT REQUIREMENT FOR FEDERAL AGENCIES.—(1) Not later than January 1, 2005, each agency shall, to the maximum extent practicable, install in Federal buildings owned by the United States all energy and water conservation measures with payback periods of less than 10 years, as determined by using the methods and procedures developed pursuant to section 544.

[(2) The Secretary may waive the requirements of this subsection for any agency for such periods as the Secretary may determine if the Secretary finds that the agency is taking all practicable steps to meet the requirements and that the requirements of this subsection will pose an unacceptable burden upon the agency. If the Secretary waives the requirements of this subsection, the Secretary shall, as part of the report required under section 548(b), notify the Congress in writing with an explanation and a justification of the reasons for such waiver.

[(3) This subsection shall not apply to an agency's facilities that generate or transmit electric energy or to the uranium enrichment facilities operated by the Department of Energy.

[(4) An agency may participate in the Environmental Protection Agency's "Green Lights" program for purposes of receiving technical assistance in complying with the requirements of this section.

[(c) EXCLUSIONS.—(1)(A) An agency may exclude, from the energy performance requirement for a fiscal year established under subsection (a) and the energy management requirement established under subsection (b), any Federal building or collection of Federal buildings, if the head of the agency finds that—

[(i) compliance with those requirements would be impracticable;

[(ii) the agency has completed and submitted all federally required energy management reports;

[(iii) the agency has achieved compliance with the energy efficiency requirements of this Act, the Energy Policy Act of 1992, Executive orders, and other Federal law; and

[(iv) the agency has implemented all practicable, life cycle cost-effective projects with respect to the Federal building or collection of Federal buildings to be excluded.

[(B) A finding of impracticability under subparagraph (A)(i) shall be based on—

[(i) the energy intensiveness of activities carried out in the Federal building or collection of Federal buildings; or

[(ii) the fact that the Federal building or collection of Federal buildings is used in the performance of a national security function.

[(2) Each agency shall identify and list, in each report made under section 548(a), the Federal buildings designated by it for such exclusion. The Secretary shall review such findings for consistency with the standards for exclusion set forth in paragraph (1), and may within 90 days after receipt of the findings, reverse the exclusion. In the case of any such reversal, the agency shall comply with the requirements of subsections (a) and (b)(1) for the building concerned.

[(3) Not later than 180 days after the date of enactment of this paragraph, the Secretary shall issue guidelines that establish criteria for exclusions under paragraph (1).

[(d) IMPLEMENTATION STEPS.—The Secretary shall consult with the Secretary of Defense and the Administrator of General Services in developing guidelines for the implementation of this part. To meet the requirements of this section, each agency shall—

[(1) prepare and submit to the Secretary, not later than December 31, 1993, a plan describing how the agency intends to meet such requirements, including how it will—

[(A) designate personnel primarily responsible for achieving such requirements;

[(B) identify high priority projects through calculation of payback periods;

[(C) take maximum advantage of contracts authorized under title VIII of this Act, of financial incentives and other services provided by utilities for efficiency investment, and of other forms of financing to reduce the direct costs to the Government; and

[(D) otherwise implement this part;

[(2) perform energy surveys of its Federal buildings to the extent necessary and update such surveys as needed, incorporating any relevant information obtained from the survey conducted pursuant to section 550;

[(3) using such surveys, determine the cost and payback period of energy and water conservation measures likely to achieve the requirements of this section;

[(4) install energy and water conservation measures that will achieve the requirements of this section through the methods and procedures established pursuant to section 544; and

[(5) ensure that the operation and maintenance procedures applied under this section are continued.

[(e) METERING OF ENERGY USE.—

[(1) DEADLINE.—By October 1, 2012, in accordance with guidelines established by the Secretary under paragraph (2), all Federal buildings shall, for the purposes of efficient use of energy and reduction in the cost of electricity used in such buildings, be metered. Each agency shall use, to the maximum extent practicable, advanced meters or advanced metering devices that provide data at least daily and that measure at least hourly consumption of electricity in the Federal buildings of the agency. Not later than October 1, 2016, each agency shall provide for equivalent metering of natural gas and steam, in accordance with guidelines established by the Secretary under paragraph (2). Such data shall be incorporated into existing Federal energy tracking systems and made available to Federal facility managers.

[(2) GUIDELINES.—

[(A) IN GENERAL.—Not later than 180 days after the date of enactment of this subsection, the Secretary, in consultation with the Department of Defense, the General Services Administration, representatives from the metering industry, utility industry, energy services industry, energy efficiency industry, energy efficiency advocacy organizations, national laboratories, universities, and Federal facility managers, shall establish guidelines for agencies to carry out paragraph (1).

[(B) REQUIREMENTS FOR GUIDELINES.—The guidelines shall—

[(i) take into consideration—

[(I) the cost of metering and the reduced cost of operation and maintenance expected to result from metering;

[(II) the extent to which metering is expected to result in increased potential for energy management, increased potential for energy savings and energy efficiency improvement, and cost and energy savings due to utility contract aggregation; and

[(III) the measurement and verification protocols of the Department of Energy;

[(ii) include recommendations concerning the amount of funds and the number of trained personnel necessary to gather and use the metering information to track and reduce energy use;

[(iii) establish priorities for types and locations of buildings to be metered based on cost-effectiveness and a schedule of one or more dates, not later than 1 year after the date of issuance of the guidelines, on which the requirements specified in paragraph (1) shall take effect; and

[(iv) establish exclusions from the requirements specified in paragraph (1) based on the de minimis quantity of energy use of a Federal building, industrial process, or structure.

[(3) PLAN.—Not later than 6 months after the date guidelines are established under paragraph (2), in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing how the agency will implement the requirements of paragraph (1), including (A) how the agency will designate personnel primarily responsible for achieving the requirements and (B) demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices, as defined in paragraph (1), are not practicable.

[(f) USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.—

[(1) DEFINITIONS.—In this subsection:

[(A) COMMISSIONING.—The term "commissioning", with respect to a facility, means a systematic process—

[(i) of ensuring, using appropriate verification and documentation, during the period beginning on the ini-

tial day of the design phase of the facility and ending not earlier than 1 year after the date of completion of construction of the facility, that all facility systems perform interactively in accordance with—

[(I) the design documentation and intent of the facility; and

[(II) the operational needs of the owner of the facility, including preparation of operation personnel; and

[(ii) the primary goal of which is to ensure fully functional systems that can be properly operated and maintained during the useful life of the facility.

[(B) ENERGY MANAGER.—

[(i) IN GENERAL.—The term "energy manager", with respect to a facility, means the individual who is responsible for—

[(I) ensuring compliance with this subsection by the facility; and

[(II) reducing energy use at the facility.

[(ii) INCLUSIONS.—The term "energy manager" may include—

[(I) a contractor of a facility;

[(II) a part-time employee of a facility; and

[(III) an individual who is responsible for multiple facilities.

[(C) FACILITY.—

[(i) IN GENERAL.—The term "facility" means any building, installation, structure, or other property (including any applicable fixtures) owned or operated by, or constructed or manufactured and leased to, the Federal Government.

[(ii) INCLUSIONS.—The term "facility" includes—

[(I) a group of facilities at a single location or multiple locations managed as an integrated operation; and

[(II) contractor-operated facilities owned by the Federal Government.

[(iii) EXCLUSIONS.—The term "facility" does not include any land or site for which the cost of utilities is not paid by the Federal Government.

[(D) LIFE CYCLE COST-EFFECTIVE.—The term "life cycle cost-effective", with respect to a measure, means a measure, the estimated savings of which exceed the estimated costs over the lifespan of the measure, as determined in accordance with section 544.

[(E) PAYBACK PERIOD.—

[(i) IN GENERAL.—Subject to clause (ii), the term "payback period", with respect to a measure, means a value equal to the quotient obtained by dividing—

[(I) the estimated initial implementation cost of the measure (other than financing costs); by

[(II) the annual cost savings resulting from the measure, including—

[(aa) net savings in estimated energy and water costs; and

[(bb) operations, maintenance, repair, replacement, and other direct costs.

[(ii) MODIFICATIONS AND EXCEPTIONS.—The Secretary, in guidelines issued pursuant to paragraph (6), may make such modifications and provide such exceptions to the calculation of the payback period of a measure as the Secretary determines to be appropriate to achieve the purposes of this Act.

[(F) RECOMMISSIONING.—The term "recommissioning" means a process—

[(i) of commissioning a facility or system beyond the project development and warranty phases of the facility or system; and

[(ii) the primary goal of which is to ensure optimum performance of a facility, in accordance with design or current operating needs, over the useful life of the facility, while meeting building occupancy requirements.

[(G) RETROCOMMISSIONING.—The term "retrocommissioning" means a process of commissioning a facility or system that was not commissioned at the time of construction of the facility or system.

[(2) FACILITY ENERGY MANAGERS.—

[(A) IN GENERAL.—Each Federal agency shall designate an energy manager responsible for implementing this subsection and reducing energy use at each facility that meets criteria under subparagraph (B).

[(B) COVERED FACILITIES.—The Secretary shall develop criteria, after consultation with affected agencies, energy efficiency advocates, and energy and utility service providers, that cover, at a minimum, Federal facilities, including central utility plants and distribution systems and other energy intensive operations, that constitute at least 75 percent of facility energy use at each agency.

[(3) ENERGY AND WATER EVALUATIONS.—

[(A) EVALUATIONS.—Effective beginning on the date that is 180 days after the date of enactment of this subsection and annually thereafter, energy managers shall complete, for each calendar year, a comprehensive energy and water evaluation for approximately 25 percent of the facilities of each agency that meet the criteria under paragraph (2)(B) in a manner that ensures that an evaluation of each such facility is completed at least once every 4 years.

[(B) RECOMMISSIONING AND RETROCOMMISSIONING.—As part of the evaluation under subparagraph (A), the energy manager shall identify and assess recommissioning measures (or, if the facility has never been commissioned, retrocommissioning measures) for each such facility.

[(4) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—Not later than 2 years after the completion of each evaluation under paragraph (3), each energy manager may—

[(A) implement any energy- or water-saving measure that the Federal agency identified in the evaluation conducted under paragraph (3) that is life cycle cost-effective; and

[(B) bundle individual measures of varying paybacks together into combined projects.

[(5) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under paragraph (4), each energy manager shall ensure that—

[(A) equipment, including building and equipment controls, is fully commissioned at acceptance to be operating at design specifications;

[(B) a plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed;

[(C) equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair; and

[(D) energy and water savings are measured and verified.

[(6) GUIDELINES.—

[(A) IN GENERAL.—The Secretary shall issue guidelines and necessary criteria that each Federal agency shall follow for implementation of—

[(i) paragraphs (2) and (3) not later than 180 days after the date of enactment of this subsection; and

[(ii) paragraphs (4) and (5) not later than 1 year after the date of enactment of this subsection.

[(B) RELATIONSHIP TO FUNDING SOURCE.—The guidelines issued by the Secretary under subparagraph (A) shall be appropriate and uniform for measures funded with each type of funding made available under paragraph (10), but may distinguish between different types of measures project size, and other criteria the Secretary determines are relevant.

[(7) WEB-BASED CERTIFICATION.—

[(A) IN GENERAL.—For each facility that meets the criteria established by the Secretary under paragraph (2)(B), the energy manager shall use the web-based tracking system under subparagraph (B) to certify compliance with the requirements for—

[(i) energy and water evaluations under paragraph (3);

[(ii) implementation of identified energy and water measures under paragraph (4); and

[(iii) follow-up on implemented measures under paragraph (5).

[(B) DEPLOYMENT.—

[(i) IN GENERAL.—Not later than 1 year after the date of enactment of this subsection, the Secretary shall develop and deploy a web-based tracking system required under this paragraph in a manner that tracks, at a minimum—

[(I) the covered facilities;

[(II) the status of meeting the requirements specified in subparagraph (A);

[(III) the estimated cost and savings for measures required to be implemented in a facility;

[(IV) the measured savings and persistence of savings for implemented measures; and

[(V) the benchmarking information disclosed under paragraph (8)(C).

[(ii) EASE OF COMPLIANCE.—The Secretary shall ensure that energy manager compliance with the requirements in this paragraph, to the maximum extent practicable—

[(I) can be accomplished with the use of streamlined procedures and templates that minimize the time demands on Federal employees; and

[(II) is coordinated with other applicable energy reporting requirements.

[(C) AVAILABILITY.—

[(i) IN GENERAL.—Subject to clause (ii), the Secretary shall make the web-based tracking system required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

[(ii) EXEMPTIONS.—At the request of a Federal agency, the Secretary may exempt specific data for specific facilities from disclosure under clause (i) for national security purposes.

[(8) BENCHMARKING OF FEDERAL FACILITIES.—

[(A) IN GENERAL.—The energy manager shall enter energy use data for each metered building that is (or is a part of) a facility that meets the criteria established by the Secretary under paragraph (2)(B) into a building energy use benchmarking system, such as the Energy Star Portfolio Manager.

[(B) SYSTEM AND GUIDANCE.—Not later than 1 year after the date of enactment of this subsection, the Secretary shall—

[(i) select or develop the building energy use benchmarking system required under this paragraph for each type of building; and

[(ii) issue guidance for use of the system.

[(C) PUBLIC DISCLOSURE.—Each energy manager shall post the information entered into, or generated by, a benchmarking system under this subsection, on the web-based tracking system under paragraph (7)(B). The energy manager shall update such information each year, and shall include in such reporting previous years' information to allow changes in building performance to be tracked over time.

[(9) FEDERAL AGENCY SCORECARDS.—

[(A) IN GENERAL.—The Director of the Office of Management and Budget shall issue semiannual scorecards for energy management activities carried out by each Federal agency that includes—

[(i) summaries of the status of implementing the various requirements of the agency and its energy managers under this subsection; and

[(ii) any other means of measuring performance that the Director considers appropriate.

[(B) AVAILABILITY.—The Director shall make the scorecards required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

[(10) FUNDING AND IMPLEMENTATION.—

[(A) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

[(B) FUNDING OPTIONS.—

[(i) IN GENERAL.—To carry out this subsection, a Federal agency may use any combination of—

[(I) appropriated funds made available under subparagraph (A); and

[(II) private financing otherwise authorized under Federal law, including financing available through energy savings performance contracts or utility energy service contracts.

[(ii) COMBINED FUNDING FOR SAME MEASURE.—A Federal agency may use any combination of appropriated funds and private financing described in clause (i) to carry out the same measure under this subsection.

[(C) IMPLEMENTATION.—Each Federal agency may implement the requirements under this subsection itself or may contract out performance of some or all of the requirements.

[(11) RULE OF CONSTRUCTION.—This subsection shall not be construed to require or to obviate any contractor savings guarantees.

[(f) LARGE CAPITAL ENERGY INVESTMENTS.—

[(1) IN GENERAL.—Each Federal agency shall ensure that any large capital energy investment in an existing building that is not a major renovation but involves replacement of installed equipment (such as heating and cooling systems), or involves renovation, rehabilitation, expansion, or remodeling of existing space, employs the most energy efficient designs, systems, equipment, and controls that are life-cycle cost effective.

[(2) PROCESS FOR REVIEW OF INVESTMENT DECISIONS.—Not later than 180 days after the date of enactment of this subsection, each Federal agency shall—

[(A) develop a process for reviewing each decision made on a large capital energy investment described in paragraph (1) to ensure that the requirements of this subsection are met; and

[(B) report to the Director of the Office of Management and Budget on the process established.

[(3) COMPLIANCE REPORT.—Not later than 1 year after the date of enactment of this subsection, the Director of the Office of Management and Budget shall evaluate and report to Congress on the compliance of each agency with this subsection.]

SEC. 543. ENERGY EFFICIENT INFORMATION AND COMMUNICATIONS TECHNOLOGIES.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of the American Clean Energy and Security Act of 2009, each Federal agency shall collaborate with the Director of the Office of

Management and Budget (referred to in this section as the "Director") to create an implementation strategy, including best practices and measurement and verification techniques, for the purchase and use of energy efficient information and communications technologies and practices. Wherever possible, existing standards, specifications, performance metrics, and best management practices that have been or are being developed in open collaboration and with broad stakeholder input and review should be incorporated. In addition, agency strategies shall be flexible, cost-effective, and based on the specific operating requirements and statutory mission of each agency.

(b) ENERGY EFFICIENT INFORMATION AND COMMUNICATIONS TECHNOLOGIES.—In developing an implementation strategy, each agency shall—

(1) consider information and communications technologies and infrastructure, including, but not limited to, advanced metering infrastructure, information and communications technology services and products, efficient data center strategies, applications modernization and rationalization, building systems energy efficiency, and telework; and

(2) ensure that agencies are eligible to realize the savings and rewards brought about through increased efficiencies.

(c) PERFORMANCE GOALS.—Not later than 6 months after the date of enactment of the American Clean Energy and Security Act of 2009, the Director shall establish performance goals for evaluating the efforts of the agencies in improving the maintenance, purchase and use of energy efficiency of information and communications technology systems. These performance goals should measure information technology costs over a specific time horizon (3 to 5 years), providing a complete picture of all costs, including energy.

(d) REPORT.—Not later than 18 months after the date of enactment of the American Clean Energy and Security Act of 2009, and annually thereafter, the Director shall submit a report to Congress on—

(1) the progress of each agency in reducing energy use through its implementation strategy; and

(2) new and emerging technologies that would help achieve increased energy efficiency.

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TITLE VIII—ENERGY SAVINGS PERFORMANCE CONTRACTS

SEC. 801. AUTHORITY TO ENTER INTO CONTRACTS.

(a) IN GENERAL.—(1) * * *

(2)(A) * * *

* * * * * * *

(E) FUNDING OPTIONS.—**[**In**]** *Notwithstanding any other provision of law, in* carrying out a contract under this title, a Federal agency may use any combination of—

(i) * * *

* * * * * * *

(3)(A) The head of a Federal agency may issue a task or delivery order under an energy savings performance contract by—

(i) notifying all contractors that have received an award under such contract that the agency proposes to discuss energy savings performance services for some or all of its facilities, soliciting an expression of interest in performing site surveys or investigations and feasibility designs and studies and the submission of qualifications from such contractors, and including in such notice summary information concerning energy use for any facilities that the agency has specific interest in including in such contract;

(ii) reviewing all expressions of interest and qualifications submitted pursuant to the notice under clause (i);

(iii) selecting two or more contractors (from among those reviewed under clause (ii)) to conduct discussions concerning the contractors' respective qualifications to implement potential energy conservation measures, including requesting references demonstrating experience on similar efforts and the resulting energy savings of such similar efforts;

(iv) selecting and authorizing—

(I) more than one contractor (from among those selected under clause (iii)) to conduct site surveys, investigations, feasibility designs and studies or similar assessments for the energy savings performance contract services (or for discrete portions of such services), for the purpose of allowing each such contractor to submit a firm, fixed-price proposal to implement specific energy conservation measures; or

(II) one contractor (from among those selected under clause (iii)) to conduct a site survey, investigation, a feasibility design and study or similar for the purpose of allowing the contractor to submit a firm, fixed-price proposal to implement specific energy conservation measures;

(v) negotiating a task or delivery order for energy savings performance contracting services with the contractor or contractors selected under clause (iv) based on the energy conservation measures identified; and

(vi) issuing a task or delivery order for energy savings performance contracting services to such contractor or contractors.

(B) The issuance of a task or delivery order for energy savings performance contracting services pursuant to subparagraph (A) is deemed to satisfy the task and delivery order competition requirements in section 2304c(d) of title 10, United States Code, and section 303J(d) of the Federal Property and Administrative Services Act of 1949 (41 U.S.C. 253j(d)).

(C) The Secretary may issue guidance as necessary to agencies issuing task or delivery orders pursuant to subparagraph (A).

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COMMODITY EXCHANGE ACT

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SEC. 1a. DEFINITIONS.

As used in this Act:

(1) * * *

* * * * * * *

(13) ENERGY COMMODITY.—The term "energy commodity" means—

(A) coal;

(B) crude oil, gasoline, diesel fuel, jet fuel, heating oil, and propane;

(C) electricity (excluding financial transmission rights which are subject to regulation and oversight by the Federal Energy Regulatory Commission);

(D) natural gas; and

(E) any other substance (other than an excluded commodity, a metal, or an agricultural commodity) that is used as a source of energy, as the Commission, in its discretion, deems appropriate.

[(13)] *(14)* EXCLUDED COMMODITY.—The term "excluded commodity" means—

(i) * * *

* * * * * * *

[(14)] *(15)* EXEMPT COMMODITY.—The term "exempt commodity" means a commodity that is not an excluded commodity*, an energy commodity,* or an agricultural commodity.

[(15)] *(16)* FINANCIAL INSTITUTION.—The term "financial institution" means—

(A) * * *

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[(16)] *(17)* FLOOR BROKER.—The term "floor broker" means any person who, in or surrounding any pit, ring, post, or other place provided by a contract market or derivatives transaction execution facility for the meeting of persons similarly engaged, shall purchase or sell for any other person any commodity for future delivery on or subject to the rules of any contract market or derivatives transaction execution facility.

[(17)] *(18)* FLOOR TRADER.—The term "floor trader" means any person who, in or surrounding any pit, ring, post, or other place provided by a contract market or derivatives transaction execution facility for the meeting of persons similarly engaged, purchases, or sells solely for such person's own account, any commodity for future delivery on or subject to the rules of any contract market or derivatives transaction execution facility.

[(18)] *(19)* FOREIGN FUTURES AUTHORITY.—The term "foreign futures authority" means any foreign government, or any department, agency, governmental body, or regulatory organization empowered by a foreign government to administer or enforce a law, rule, or regulation as it relates to a futures or options matter, or any department or agency of a political subdivision of a foreign government empowered to administer or enforce a law, rule, or regulation as it relates to a futures or options matter.

[(19)] *(20)* FUTURE DELIVERY.—The term "future delivery" does not include any sale of any cash commodity for deferred shipment or delivery.

[(20)] *(21)* FUTURES COMMISSION MERCHANT.—The term "futures commission merchant" means an individual, association, partnership, corporation, or trust that—

(A) * * *

* * * * * * *

[(21)] *(22)* HYBRID INSTRUMENT.—The term "hybrid instrument" means a security having one or more payments indexed to the value, level, or rate of, or providing for the delivery of, one or more commodities.

(23) INCLUDED ENERGY TRANSACTION.—The term "included energy transaction" means a contract, agreement, or transaction in an energy commodity for future delivery that provides for a delivery point of the energy commodity in the United States or a territory or possession of the United States, or that is offered or transacted on or through a computer terminal located in the United States.

[(22)] *(24)* INTERSTATE COMMERCE.—The term "interstate commerce" means commerce—

(A) * * *

* * * * * * *

[(23)] *(25)* INTRODUCING BROKER.—The term "introducing broker" means any person (except an individual who elects to be and is registered as an associated person of a futures commission merchant) engaged in soliciting or in accepting orders for the purchase or sale of any commodity for future delivery on or subject to the rules of any contract market or derivatives transaction execution facility who does not accept any money, securities, or property (or extend credit in lieu thereof) to margin, guarantee, or secure any trades or contracts that result or may result therefrom.

[(24)] *(26)* MEMBER OF A REGISTERED ENTITY; MEMBER OF A DERIVATIVES TRANSACTION EXECUTION FACILITY.—The term "member" means, with respect to a registered entity or derivatives transaction execution facility, an individual, association, partnership, corporation, or trust—

(A) * * *

* * * * * * *

[(25)] *(27)* NARROW-BASED SECURITY INDEX.—

(A) The term "narrow-based security index" means an index—

(i) * * *

* * * * * * *

[(26)] *(28)* OPTION.—The term "option" means an agreement, contract, or transaction that is of the character of, or is commonly known to the trade as, an "option", "privilege", "indemnity", "bid", "offer", "put", "call", "advance guaranty", or "decline guaranty".

[(27)] *(29)* ORGANIZED EXCHANGE.—The term "organized exchange" means a trading facility that—

(A) * * *

* * * * * * *

[(28)] *(30)* PERSON.—The term "person" imports the plural or singular, and includes individuals, associations, partnerships, corporations, and trusts.

[(29)] *(31)* REGISTERED ENTITY.—The term "registered entity" means—

(A) * * *

* * * * * * *

[(30)] *(32)* SECURITY.—The term "security" means a security as defined in section 2(a)(1) of the Securities Act of 1933 (15 U.S.C. 77b(a)(1)) or section 3(a)(10) of the Securities Exchange Act of 1934 (15 U.S.C. 78c(a)(10)).

[(31)] *(33)* SECURITY FUTURE.—The term "security future" means a contract of sale for future delivery of a single security or of a narrow-based security index, including any interest therein or based on the value thereof, except an exempted security under section 3(a)(12) of the Securities Exchange Act of 1934 as in effect on the date of the enactment of the Futures Trading Act of 1982 (other than any municipal security as defined in section 3(a)(29) of the Securities Exchange Act of 1934 as in effect on the date of the enactment of the Futures Trading Act of 1982). The term "security future" does not include any agreement, contract, or transaction excluded from this Act under section 2(c), 2(d), 2(f), or 2(g) of this Act (as in effect on the date of the enactment of the Commodity Futures Modernization Act of 2000) or title IV of the Commodity Futures Modernization Act of 2000.

[(32)] *(34)* SECURITY FUTURES PRODUCT.—The term "security futures product" means a security future or any put, call, straddle, option, or privilege on any security future.

[(33)] *(35)* SIGNIFICANT PRICE DISCOVERY CONTRACT.—The term "significant price discovery contract" means an agreement, contract, or transaction subject to section 2(h)(7).

[(34)] *(36)* TRADING FACILITY.—

(A) * * *

* * * * * * *

(37) CREDIT DEFAULT SWAP.—The term "credit default swap" means a contract which insures a party to the contract against the risk that an entity may experience a loss of value as a result of an event specified in the contract, such as a default or credit downgrade. A credit default swap that is traded on or cleared by a registered entity shall be excluded from the definition of a security as defined in this Act and in section 2(a)(1) of the Securities Act of 1933 or section 3(a)(10) of the Securities Exchange Act of 1934, except it shall be deemed a security solely for purpose of enforcing prohibitions against insider trading in sections 10 and 16 of the Securities Exchange Act of 1934.

SEC. 2. JURISDICTION OF COMMISSION; LIABILITY OF PRINCIPAL FOR ACT OF AGENT; COMMODITY FUTURES TRADING COMMISSION; TRANSACTION IN INTERSTATE COMMERCE.

(a) * * *

* * * * * * *

(d) EXCLUDED DERIVATIVE TRANSACTIONS.—

(1) IN GENERAL.—Nothing in this Act (other than section 5b or 12(e)(2)(B) governs or applies to an agreement, contract, or transaction in an excluded commodity if—

(A) the agreement, contract, or transaction is entered into only between persons that are eligible contract participants at the time at which the persons enter into the agreement, contract, or transaction; **[**and**]**

(B) the agreement, contract, or transaction is not executed or traded on a trading facility**[**.**]***; and*

(C) except as provided in section 4(f), the agreement, contract, or transaction is settled and cleared through a derivatives clearing organization registered with the Commission.

(2) ELECTRONIC TRADING FACILITY EXCLUSION.—Nothing in this Act (other than section 5a (to the extent provided in section 5a(g)), 5b, 5d, or 12(e)(2)(B)) governs or applies to an agreement, contract, or transaction in an excluded commodity if—

(A) * * *

(B) the agreement, contract, or transaction is entered into only between persons that are eligible contract participants described in subparagraph (A), (B)(ii), or (C) of section 1a(12)) at the time at which the persons enter into the agreement, contract, or transaction; **[**and**]**

(C) the agreement, contract, or transaction is executed or traded on an electronic trading facility**[**.**]***; and*

(D) except as provided in section 4(f), the agreement, contract, or transaction is settled and cleared through a derivatives clearing organization registered with the Commission.

* * * * * * *

(g) EXCLUDED SWAP TRANSACTIONS.—No provision of this Act (other than section 5a (to the extent provided in section 5a(g)), 5b, 5d, or 12(e)(2)) shall apply to or govern any agreement, contract, or transaction in a commodity other than an agricultural commodity *or an energy commodity* if the agreement, contract, or transaction is—

(1) * * *

(2) subject to individual negotiation by the parties; **[**and**]**

(3) not executed or traded on a trading facility**[**.**]***; and*

(4) except as provided in section 4(f), settled and cleared through a derivatives clearing organization registered with the Commission.

(h) LEGAL CERTAINTY FOR CERTAIN TRANSACTIONS IN EXEMPT COMMODITIES.—

(1) Except as provided in paragraph (2), nothing in this Act shall apply to a contract, agreement, or transaction in an exempt commodity *(other than an energy commodity)* which—

(A) is entered into solely between persons that are eligible contract participants at the time the persons enter into the agreement, contract, or transaction; **[**and**]**

(B) is not entered into on a trading facility**[**.**]***; and*

(C) except as provided in section 4(f), is settled and cleared through a derivatives clearing organization registered with the Commission.

* * * * * * *

(3) Except as provided in paragraphs (4) and (7), nothing in this Act shall apply to an agreement, contract, or transaction in an exempt commodity which is—

(A) entered into on a principal-to-principal basis solely between persons that are eligible commercial entities at the time the persons enter into the agreement, contract, or transaction; [and]

(B) executed or traded on an electronic trading facility[.]*; and*

(C) except as provided in section 4(f), settled and cleared through a derivatives clearing organization registered with the Commission.

* * * * * * *

(7) SIGNIFICANT PRICE DISCOVERY CONTRACTS.—

(A) IN GENERAL.—An agreement, contract, or transaction conducted in reliance on the exemption in paragraph (3) shall be subject to the provisions of subparagraphs (B) through (D) *of this paragraph and section 4a(a)*, under such rules and regulations as the Commission shall promulgate, provided that the Commission determines, in its discretion, that the agreement, contract, or transaction performs a significant price discovery function as described in subparagraph (B) *of this paragraph*.

* * * * * * *

(C) CORE PRINCIPLES APPLICABLE TO SIGNIFICANT PRICE DISCOVERY CONTRACTS.—

(i) * * *

(ii) CORE PRINCIPLES.—The electronic trading facility shall have reasonable discretion (including discretion to account for differences between cleared and uncleared significant price discovery contracts) in establishing the manner in which it complies with the following core principles:

(I) * * *

* * * * * * *

(IV) POSITION [LIMITATIONS OR] ACCOUNTABILITY.—The electronic trading facility shall adopt, where necessary and appropriate, [position limitations or] position accountability for speculators in significant price discovery contracts, taking into account positions in other agreements, contracts, and transactions that are treated by a derivatives clearing organization, whether registered or not registered, as fungible with such significant price discovery contracts to reduce the potential threat of market manipulation or conges-

tion, especially during trading in the delivery month.

* * * * * * *

[(D) IMPLEMENTATION.—

[(i) CLEARING.—The Commission shall take into consideration differences between cleared and uncleared significant price discovery contracts when reviewing the implementation of the core principles by an electronic trading facility.

[(ii) REVIEW.—As part of]

(D) REVIEW OF IMPLEMENTATION.—As part of the Commission's continual monitoring and surveillance activities, the Commission shall, not less frequently than annually, evaluate, as appropriate, all the agreements, contracts, or transactions conducted on an electronic trading facility in reliance on the exemption provided in paragraph (3) to determine whether they serve a significant price discovery function as described in subparagraph (B) of this paragraph.

* * * * * * *

(j) This Act shall not be interpreted to affect the jurisdiction of the Federal Energy Regulatory Commission with respect to the authority of the Federal Energy Regulatory Commission under the Federal Power Act (16 U.S.C. 791a et seq.), the Natural Gas Act (15 U.S.C. 717 et seq.), or other law to obtain information, carry out enforcement actions, or otherwise carry out the responsibilities of the Federal Energy Regulatory Commission.

(k) The Commission shall have jurisdiction over the establishment, operations, and oversight of markets for regulated allowance derivatives (as defined in section 401 of the Federal Power Act (16 U.S.C. 791a and following)), and shall provide for the establishment, operation, and oversight of the markets in accordance with the same regulations that apply under this Act to included energy transactions.

* * * * * * *

SEC. 4. (a) Unless exempted by the Commission pursuant to subsection (c), it shall be unlawful for any person to offer to enter into, to enter into, to execute, to confirm the execution of, or to conduct any office or business anywhere in the United States, its territories or possessions, for the purpose of soliciting, or accepting any order for, or otherwise dealing in, any transaction in, or in connection with, a contract for the purchase or sale of a commodity for future delivery (other than a contract which is made on or subject to the rules of a board of trade, exchange, or market located outside the United States, its territories or possessions*, and which is not an included energy transaction*) unless—

(1) * * *

* * * * * * *

(b) The Commission may adopt rules and regulations proscribing fraud and requiring minimum financial standards, the disclosure of risk, the filing of reports, the keeping of books and records, the safeguarding of customers' funds, and registration with the Commission by any person located in the United States, its territories

or possessions, who engages in the offer or sale of any contract of sale of a commodity for future delivery that is made or to be made on or subject to the rules of a board of trade, exchange, or market located outside the United States, its territories or possessions. Such rules and regulations may impose different requirements for such persons depending upon the particular foreign board of trade, exchange, or market involved. No rule or regulation may be adopted by the Commission under this subsection that (1) requires Commission approval of any contract, rule, regulation, or action of any foreign board of trade, exchange, or market, or clearinghouse for such board of trade, exchange, or market, or (2) governs in any way any rule or contract term or action of any foreign board of trade, exchange, or market, or clearinghouse for such board of trade, exchange, or market. *The preceding sentence shall not apply with respect to included energy transactions.*

(c)(1) In order to promote responsible economic or financial innovation and fair competition, the Commission by rule, regulation, or order, after notice and opportunity for hearing, may (on its own initiative or on application of any person, including any board of trade designated or registered as a contract market or derivatives transaction execution facility for transactions for future delivery in any commodity under section 5 of this Act) exempt any agreement, contract, or transaction (or class thereof) that is otherwise subject to subsection (a) (including any person or class of persons offering, entering into, rendering advice or rendering other services with respect to, the agreement, contract, or transaction), either unconditionally or on stated terms or conditions or for stated periods and either retroactively or prospectively, or both, from any of the requirements of subsection (a), or from any other provision of this Act (except subparagraphs (C)(ii) and (D) of section 2(a)(1), except that the Commission and the Securities and Exchange Commission may by rule, regulation, or order jointly exclude any agreement, contract, or transaction from section 2(a)(1)(D)), if *the agreement, contract, or transaction, except as provided in section 4(h), will be settled and cleared through a derivatives clearing organization registered with the Commission and* the Commission determines that the exemption would be consistent with the public interest.

* * * * * * *

(6) The Commission may not exempt any included energy transaction from the requirements of subsection (a), unless the Commission provides 60 days advance notice to the Congress and the Position Limit Energy Advisory Group and solicits public comment about the exemption request and any proposed Commission action.

* * * * * * *

(e) DETAILED REPORTING AND DISAGGREGATION OF MARKET DATA.—

(1) INDEX TRADERS AND SWAP DEALERS REPORTING.—The Commission shall issue a proposed rule defining and classifying index traders and swap dealers (as those terms are defined by the Commission) for purposes of data reporting requirements and setting routine detailed reporting requirements for any positions of such entities in contracts traded on designated contract markets, over-the-counter markets, derivatives transaction execution facilities, foreign boards of trade subject

to section 4(f), and electronic trading facilities with respect to significant price discovery contracts not later than 120 days after the date of the enactment of this subsection, and issue a final rule within 180 days after such date of enactment.

(2) DISAGGREGATION OF INDEX FUNDS AND OTHER DATA IN MARKETS.—Subject to section 8 and beginning within 60 days of the issuance of the final rule required by paragraph (1), the Commission shall disaggregate and make public weekly—

(A) the number of positions and total notional value of index funds and other passive, long-only and short-only positions (as defined by the Commission) in all markets to the extent such information is available; and

(B) data on speculative positions relative to bona fide physical hedgers in those markets to the extent such information is available.

(3) DISCLOSURE OF IDENTITY OF HOLDERS OF POSITIONS IN INDEXES IN EXCESS OF POSITION LIMITS.—The Commission shall include in its weekly Commitment of Trader reports the identity of each person who holds a position in an index in excess of a limit imposed under section 4i.

(f) ALTERNATIVES TO CLEARING THROUGH DESIGNATED CLEARING ORGANIZATIONS.—

(1) SETTLEMENT AND CLEARING THROUGH CERTAIN OTHER REGULATED ENTITIES.—An agreement, contract, or transaction, or class thereof, relating to an excluded commodity, that would otherwise be required to be settled and cleared by section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), or 2(h)(3)(C) of this Act, or subsection (c)(1) of this section may be settled and cleared through an entity listed in subsections (a) or (b) of section 409 of the Federal Deposit Insurance Corporation Improvement Act of 1991.

(2) WAIVER OF CLEARING REQUIREMENT.—

(A) The Commission, in its discretion, may exempt an agreement, contract, or transaction, or class thereof, that would otherwise be required by section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), or 2(h)(3)(C) of this Act, or subsection (c)(1) of this section to be settled and cleared through a derivatives clearing organization registered with the Commission from such requirement.

(B) In granting exemptions pursuant to subparagraph (A), the Commission shall consult with the Securities and Exchange Commission and the Board of Governors of the Federal Reserve System regarding exemptions that relate to excluded commodities or entities for which the Securities Exchange Commission or the Board of Governors of the Federal Reserve System serve as the primary regulator.

(C) Before granting an exemption pursuant to subparagraph (A), the Commission shall find that the agreement, contract, or transaction, or class thereof—

(i) is highly customized as to its material terms and conditions;

(ii) is transacted infrequently;

(iii) does not serve a significant price-discovery function in the marketplace; and

(iv) is being entered into by parties who can demonstrate the financial integrity of the agreement, contract, or transaction and their own financial integrity, as such terms and standards are determined by the Commission. The standards may include, with respect to any federally regulated financial entity for which net capital requirements are imposed, a net capital requirement associated with any agreement, contract, or transaction subject to an exemption from the clearing requirement that is higher than the net capital requirement that would be associated with such a transaction were it cleared

(D) Any agreement, contract, or transaction, or class thereof, which is exempted pursuant to subparagraph (A) shall be reported to the Commission in a manner designated by the Commission, or to such other entity the Commission deems appropriate.

(E) The Commission, the Securities and Exchange Commission and the Board of Governors of the Federal Reserve System shall enter into a memorandum of understanding by which the information reported to the Commission pursuant to subparagraph (D) with regard to excluded commodities or entities for which the Securities Exchange Commission or the Board of Governors of the Federal Reserve System serve as the primary regulator may be provided to the other agencies.

(g) SPOT AND FORWARD EXCLUSION.—The settlement and clearing requirements of section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), 2(h)(3)(C), or 4(c)(1) shall not apply to an agreement, contract, or transaction of any cash commodity for immediate or deferred shipment or delivery, as defined by the Commission.

SEC. 4a. (a)*(1)* Excessive speculation in any commodity under contracts of sale of such commodity for future delivery made on or subject to the rules of contract markets or derivatives transaction execution facilities, or on electronic trading facilities with respect to a significant price discovery contract causing sudden or unreasonable fluctuations or unwarranted changes in the price of such commodity, is an undue and unnecessary burden on interstate commerce in such commodity. For the purpose of diminishing, eliminating, or preventing such burden, the Commission shall, from time to time, after due notice and opportunity for hearing, by rule, regulation, or order, proclaim and fix such limits on the amounts of trading which may be done or positions which may be held by any person under contracts of sale of such commodity for future delivery on or subject to the rules of any contract market or derivatives transaction execution facility, or on an electronic trading facility with respect to a significant price discovery contract, as the Commission finds are necessary to diminish, eliminate, or prevent such burden. *With respect to energy transactions, the Commission shall fix limits on the aggregate number of positions which may be held by any person for each month across all markets subject to the jurisdiction of the Commission.* In determining whether any person has exceeded such limits, the positions held and trading done by any persons directly or indirectly controlled by such person shall be included with the positions held and trading done by such person;

and further, such limits upon positions and trading shall apply to positions held by, and trading done by, two or more persons acting pursuant to an expressed or implied agreement or understanding, the same as if the positions were held by, or the trading were done by, a single person. Nothing in this section shall be construed to prohibit the Commission*, consistent with the 3rd sentence,* from fixing different trading or position limits for different commodities, markets, futures, or delivery months, or for different number of days remaining until the last day of trading in a contract, or different trading limits for buying and selling operations, or different limits for the purposes of paragraphs (1) and (2) of subsection (b) of this section, or from exempting transactions normally known to the trade as "spreads" or "straddles" or "arbitrage" or from fixing limits applying to such transactions or positions different from limits fixed for other transactions or positions. The word "arbitrage" in domestic markets shall be defined to mean the same as a "spread" or "straddle". The Commission is authorized to define the term "international arbitrage".

(2)(A) Not later than 60 days after the date of the enactment of this paragraph, the Commission shall convene a Position Limit Energy Advisory Group consisting of representatives from—

(i) 7 predominantly commercial short hedgers of the actual energy commodity for future delivery;

(ii) 7 predominantly commercial long hedgers of the actual energy commodity for future delivery;

(iii) 4 non-commercial participants in markets for energy commodities for future delivery; and

(iv) each designated contract market or derivatives transaction execution facility upon which a contract in the energy commodity for future delivery is traded, and each electronic trading facility that has a significant price discovery contract in the energy commodity.

(B) Not later than 60 days after the date on which the advisory group is convened under subparagraph (A), and annually thereafter, the advisory group shall submit to the Commission advisory recommendations regarding the position limits to be established in paragraph (1).

(C) The Commission shall have exclusive authority to grant exemptions for bona fide hedging transactions and positions from position limits imposed under this Act on energy transactions.

* * * * * * *

(c)*(1)* No rule, regulation, or order issued under subsection (a) of this section shall apply to transactions or positions which are shown to be bona fide hedging transactions or positions, as such terms shall be defined by the Commission by rule, regulation, or order consistent with the purposes of this Act. Such terms may be defined to permit producers, purchasers, sellers, middlemen, and users of a commodity or a product derived therefrom to hedge their legitimate anticipated business needs for that period of time into the future for which an appropriate futures contract is open and available on an exchange. To determine the adequacy of this Act and the powers of the Commission acting thereunder to prevent unwarranted price pressures by large hedgers, the Commission shall monitor and analyze the trading activities of the largest hedgers, as determined by the Commission, operating in the cattle, hog,

or pork belly markets and shall report its findings and recommendations to the Senate Committee on Agriculture, Nutrition, and Forestry and the House Committee on Agriculture in its annual reports for at least two years following the date of enactment of the Futures Trading Act of 1982.

(2) For the purposes of contracts of sale for future delivery and options on such contracts or commodities, the Commission shall define what constitutes a bona fide hedging transaction or position as a transaction or position that—

(A)(i) represents a substitute for transactions made or to be made or positions taken or to be taken at a later time in a physical marketing channel;

(ii) is economically appropriate to the reduction of risks in the conduct and management of a commercial enterprise; and

(iii) arises from the potential change in the value of—

(I) assets that a person owns, produces, manufactures, processes, or merchandises or anticipates owning, producing, manufacturing, processing, or merchandising;

(II) liabilities that a person owns or anticipates incurring; or

(III) services that a person provides, purchases, or anticipates providing or purchasing; or

(B) reduces risks attendant to a position resulting from a transaction that—

(i) was executed pursuant to subsection (d), (g), (h)(1), or (h)(2) of section 2, or an exemption issued by the Commission by rule, regulation or order; and

(ii) was executed opposite a counterparty for which the transaction would qualify as a bona fide hedging transaction pursuant to paragraph (2)(A) of this subsection.

* * * * * * *

(f) The provisions of this section shall apply to the amounts of trading which may be done or positions which may be held by any person under contracts of sale of an index for future delivery on or subject to the rules of any contract market, derivatives transaction execution facility, or over-the-counter market, or on an electronic trading facility with respect to a significant price discovery contract, in the same manner in which this section applies to contracts of sale of a commodity for future delivery.

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SEC. 4c. PROHIBITED TRANSACTIONS.

(a) * * *

* * * * * * *

(h) LIMITATION ON ELIGIBILITY TO PURCHASE A CREDIT DEFAULT SWAP.—It shall be unlawful for any person to enter into a credit default swap unless the person—

(1) owns a credit instrument which is insured by the credit default swap;

(2) would experience financial loss if an event that is the subject of the credit default swap occurs with respect to the credit instrument; and

(3) meets such minimum capital adequacy standards as may be established by the Commission, in consultation with the

Board of Governors of the Federal Reserve System, or such more stringent minimum capital adequacy standards as may be established by or under the law of any State in which the swap is originated or entered into, or in which possession of the contract involved takes place.

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SEC. 5. DESIGNATION OF BOARDS OF TRADE AS CONTRACT MARKETS.

(a) * * *

* * * * * * *

(d) CORE PRINCIPLES FOR CONTRACT MARKETS.—

(1) * * *

* * * * * * *

(5) POSITION [LIMITATIONS OR] ACCOUNTABILITY.—To reduce the potential threat of market manipulation or congestion, especially during trading in the delivery month, the board of trade shall adopt [position limitations or] position accountability for speculators, where necessary and appropriate.

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SEC. 5a. DERIVATIVES TRANSACTION EXECUTION FACILITIES.

(a) * * *

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(d) CORE PRINCIPLES FOR REGISTERED DERIVATIVES TRANSACTION EXECUTION FACILITIES.—

(1) * * *

* * * * * * *

(4) POSITION [LIMITATIONS OR] ACCOUNTABILITY.—To reduce the potential threat of market manipulation or congestion, especially during trading in the delivery month, the derivatives transaction execution facility shall adopt [position limits or] position accountability for speculators, where necessary and appropriate for a contract, agreement or transaction with an underlying commodity that has a physically deliverable supply.

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SEC. 5b. DERIVATIVES CLEARING ORGANIZATIONS.

(a) * * *

* * * * * * *

(c) REGISTRATION OF DERIVATIVES CLEARING ORGANIZATIONS.—

(1) * * *

(2) CORE PRINCIPLES.—

(A) * * *

* * * * * * *

(O) DISCLOSURE OF GENERAL INFORMATION.—The applicant shall disclose publicly and to the Commission information concerning—

(i) the terms and conditions of contracts, agreements, and transactions cleared and settled by the applicant;

(ii) the conventions, mechanisms, and practices applicable to the contracts, agreements, and transactions;

(iii) the margin-setting methodology and the size and composition of the financial resource package of the applicant; and

(iv) other information relevant to participation in the settlement and clearing activities of the applicant.

(P) DAILY PUBLICATION OF TRADING INFORMATION.—The applicant shall make public daily information on settlement prices, volume, and open interest for contracts settled or cleared pursuant to the requirements of section 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), 2(h)(3)(C) or 4(c)(1) of this Act by the applicant if the Commission determines that the contracts perform a significant price discovery function for transactions in the cash market for the commodity underlying the contracts.

(Q) FITNESS STANDARDS.—The applicant shall establish and enforce appropriate fitness standards for directors, members of any disciplinary committee, and members of the applicant, and any other persons with direct access to the settlement or clearing activities of the applicant, including any parties affiliated with any of the persons described in this subparagraph.

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SEC. 12. (a) * * *

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(e) CLEARING FEES.—

(1) IN GENERAL.—The Commission shall, in accordance with this subsection, charge and collect from each registered clearing organization, and each such organization shall pay to the Commission, transaction fees at a rate calculated to recover the costs to the Federal Government of the supervision and regulation of futures markets, except those directly related to enforcement.

(2) FEES ASSESSED PER SIDE OF CLEARED CONTRACTS.—

(A) IN GENERAL.—The Commission shall determine the fee rate referred to in paragraph (1), and shall apply the fee rate per side of any transaction cleared.

(B) AUTHORITY TO DELEGATE.—The Commission may determine the procedures by which the fee rate is to be applied on the transactions subject to the fee, or delegate the authority to make the determination to any appropriate derivatives clearing organization.

(3) EXEMPTIONS.—The Commission may not impose a fee under paragraph (1) on—

(A) a class of contracts or transactions if the Commission finds that it is in the public interest to exempt the class from the fee; or

(B) a contract or transaction cleared by a registered derivatives clearing organization that is—

(i) subject to fees under section 31 of the Securities Exchange Act of 1934; or

(ii) a security as defined in the Securities Act of 1933 or the Securities Exchange Act of 1934.

(4) DATES FOR PAYMENT OF FEES.—The fees imposed under paragraph (1) shall be paid on or before—

(A) March 15 of each year, with respect to transactions occurring on or after the preceding September 1 and on or before the preceding December 31; and

(B) September 15 of each year, with respect to transactions occurring on or after the preceding January 1 and on or before the preceding August 31.

(5) ANNUAL ADJUSTMENT OF FEE RATES.—

(A) IN GENERAL.—Not later than April 30 of each fiscal year , the Commission shall, by order, adjust each fee rate determined under paragraph (2) for the fiscal year to a uniform adjusted rate that, when applied to the estimated aggregate number of cleared sides of transactions for the fiscal year, is reasonably likely to produce aggregate fee receipts under this subsection for the fiscal year equal to the target offsetting receipt amount for the fiscal year.

(B) DEFINITIONS.—In subparagraph (A):

(i) ESTIMATED AGGREGATE NUMBER OF CLEARED SIDES OF TRANSACTIONS.—The term "estimated aggregate number of cleared sides of transactions" means, with respect to a fiscal year, the aggregate number of cleared sides of transactions to be cleared by registered derivatives clearing organizations during the fiscal year, as estimated by the Commission, after consultation with the Office of Management and Budget, using the methodology required for making projections pursuant to section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985.

(ii) TARGET OFFSETTING RECEIPT AMOUNT.—The term "target offsetting receipt amount" means, with respect to a fiscal year, the total level of Commission budget authority for all non-enforcement activities of the Commission, as contained in the regular appropriations Acts for the fiscal year.

(C) NO JUDICIAL REVIEW.—An adjusted fee rate prescribed under subparagraph (A) shall not be subject to judicial review.

(6) PUBLICATION.—Not later than April 30 of each fiscal year, the Commission shall cause to be published in the Federal Register notices of the fee rates applicable under this subsection for the succeeding fiscal year, and any estimate or projection on which the fee rates are based.

(7) INAPPLICABILITY OF CERTAIN PROCEDURAL RULES.—Section 553 of title 5, United States Code, shall not apply with respect to any exercise of authority under this subsection.

(8) ESTABLISHMENT OF FUTURES AND OPTIONS TRANSACTION FEE ACCOUNT; DEPOSIT OF FEES.—There is established in the Treasury of the United States an account which shall be known as the "Futures and Options Transaction Fee Account". All fees collected under this subsection for a fiscal year shall be deposited in the account. Amounts in the account are authorized to be appropriated to fund the expenditures of the Commission.

[(e)**]** *(f)* RELATION TO OTHER LAW, DEPARTMENTS, OR AGENCIES.—

(1) * * *

(2) This Act shall supersede and preempt the application of any State or local law that prohibits or regulates gaming or the operation of bucket shops (other than antifraud provisions of general applicability) in the case of—

(A) * * *

(B) an agreement, contract, or transaction *(other than a credit default swap in which the purchaser of the swap would not experience financial loss if an event that is the subject of the swap occurred)* that is excluded from this Act under section 2(c), 2(d), 2(f), or 2(g) of this Act or title IV of the Commodity Futures Modernization Act of 2000, or exempted under section 2(h) or 4(c) of this Act (regardless of whether any such agreement, contract, or transaction is otherwise subject to this Act).

[(f)**]** *(g)*(1) * * *

* * * * * * *

[(g)**]** *(h)* Consistent with its responsibilities under section 18, the Commission is directed to facilitate the development and operation of computerized trading as an adjunct to the open outcry auction system. The Commission is further directed to cooperate with the Office of the United States Trade Representative, the Department of the Treasury, the Department of Commerce, and the Department of State in order to remove any trade barriers that may be imposed by a foreign nation on the international use of electronic trading systems.

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SECTION 409 OF THE FEDERAL DEPOSIT INSURANCE CORPORATION IMPROVEMENT ACT OF 1991

SEC. 409. MULTILATERAL CLEARING ORGANIZATIONS.

(a) * * *

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(c) CLEARING REQUIREMENT.—A multilateral clearing organization described in subsections (a) or (b) of this section shall comply with requirements similar to the requirements of sections 5b and 5c of the Commodity Exchange Act.

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SECTION 407 OF THE LEGAL CERTAINTY FOR BANK PRODUCTS ACT OF 2000

SEC. 407. EXCLUSION OF COVERED SWAP AGREEMENTS.

No provision of the Commodity Exchange Act (other than section 5b of such Act with respect to the clearing of covered swap agreements *and the settlement and clearing requirements of sections 2(d)(1)(C), 2(d)(2)(D), 2(g)(4), 2(h)(1)(C), 2(h)(3)(C), and 4(c)(1) of such Act*) shall apply to, and the Commodity Futures Trading Commission shall not exercise regulatory authority with respect to, a

covered swap agreement offered, entered into, or provided by a bank.

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NATURAL GAS ACT

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ENFORCEMENT OF ACT; REGULATIONS AND ORDERS

SEC. 20. (a) * * *

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(e) CEASE-AND-DESIST PROCEEDINGS; TEMPORARY ORDERS; AUTHORITY OF THE COMMISSION.—

(1) IN GENERAL.—If the Commission finds, after notice and opportunity for hearing, that any entity may be violating, may have violated, or may be about to violate any provision of this Act, or any rule, regulation, restriction, condition, or order made or imposed by the Commission under the authority of this Act, the Commission may publish its findings and issue an order requiring such entity, and any other entity that is, was, or would be a cause of the violation, due to an act or omission the entity knew or should have known would contribute to such violation, to cease and desist from committing or causing such violation and any future violation of the same provision, rule, or regulation. Such order may, in addition to requiring an entity to cease and desist from committing or causing a violation, require such entity to comply, to provide an accounting and disgorgement, or to take steps to effect compliance, with such provision, rule, or regulation, upon such terms and conditions and within such time as the Commission may specify in such order. Any such order may, as the Commission deems appropriate, require future compliance or steps to effect future compliance, either permanently or for such period of time as the Commission may specify.

(2) TIMING OF ENTRY.—An order issued under this subsection shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing prior to entry would be impracticable or contrary to the public interest.

(f) HEARING.—The notice instituting proceedings pursuant to subsection (e) shall fix a hearing date not earlier than 30 days nor later than 60 days after service of the notice unless an earlier or a later date is set by the Commission with the consent of any respondent so served.

(g) TEMPORARY ORDER.—Whenever the Commission determines that—

(1) a respondent may take actions to dissipate or convert assets prior to the completion of the proceedings referred to in subsection (e), and such assets would be necessary to comply with or otherwise satisfy a final enforcement order of the Commission pursuant to alleged violations or threatened violations specified in the notice instituting proceedings; or

(2) a respondent is engaged in actual or threatened violations of this Act or a Commission rule, regulation, restriction or order referred to in subsection (e),

the Commission may issue a temporary order requiring the respondent to take such action to prevent dissipation or conversion of assets, significant harm to energy consumers, or substantial harm to the public interest, frustration of the Commission's ability to conduct the proceedings, or frustration of the Commission's ability to redress said violation at the conclusion of the proceedings, as the Commission deems appropriate pending completion of such proceedings.

(h) REVIEW OF TEMPORARY ORDERS.—

(1) COMMISSION REVIEW.—At any time after the respondent has been served with a temporary cease-and-desist order pursuant to subsection (g), the respondent may apply to the Commission to have the order set aside, limited, or suspended. If the respondent has been served with a temporary cease-and-desist order entered without a prior Commission hearing, the respondent may, within 10 days after the date on which the order was served, request a hearing on such application and the Commission shall hold a hearing and render a decision on such application at the earliest possible time.

(2) JUDICIAL REVIEW.—Within—

(A) 10 days after the date the respondent was served with a temporary cease-and-desist order entered with a prior Commission hearing; or

(B) 10 days after the Commission renders a decision on an application and hearing under paragraph (1),

with respect to any temporary cease-and-desist order entered without a prior Commission hearing, the respondent may apply to the United States district court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order, and the court shall have jurisdiction to enter such an order. A respondent served with a temporary cease-and-desist order entered without a prior Commission hearing may not apply to the court except after hearing and decision by the Commission on the respondent's application under paragraph (1) of this subsection.

(3) NO AUTOMATIC STAY OF TEMPORARY ORDER.—The commencement of proceedings under paragraph (2) of this subsection shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.

(4) EXCLUSIVE REVIEW.—Sections 19(d) and 24 shall not apply to a temporary order entered pursuant to this section.

(i) IMPLEMENTATION.—The Commission is authorized to adopt rules, regulations, and orders as it deems appropriate to implement this section.

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SECTION 504 OF THE NATURAL GAS POLICY ACT OF 1978

SEC. 504. ENFORCEMENT.

(a) * * *

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(d) CEASE-AND-DESIST PROCEEDINGS; TEMPORARY ORDERS; AUTHORITY OF THE COMMISSION.—

(1) IN GENERAL.—If the Commission finds, after notice and opportunity for hearing, that any entity may be violating, may have violated, or may be about to violate any provision of this Act, or any rule, regulation, restriction, condition, or order made or imposed by the Commission under the authority of this Act, the Commission may publish its findings and issue an order requiring such entity, and any other entity that is, was, or would be a cause of the violation, due to an act or omission the entity knew or should have known would contribute to such violation, to cease and desist from committing or causing such violation and any future violation of the same provision, rule, or regulation. Such order may, in addition to requiring an entity to cease and desist from committing or causing a violation, require such entity to comply, to provide an accounting and disgorgement, or to take steps to effect compliance, with such provision, rule, or regulation, upon such terms and conditions and within such time as the Commission may specify in such order. Any such order may, as the Commission deems appropriate, require future compliance or steps to effect future compliance, either permanently or for such period of time as the Commission may specify.

(2) TIMING OF ENTRY.—An order issued under this subsection shall be entered only after notice and opportunity for a hearing, unless the Commission determines that notice and hearing prior to entry would be impracticable or contrary to the public interest.

(3) HEARING.—The notice instituting proceedings pursuant to paragraph (1) shall fix a hearing date not earlier than 30 days nor later than 60 days after service of the notice unless an earlier or a later date is set by the Commission with the consent of any respondent so served.

(4) TEMPORARY ORDER.—Whenever the Commission determines that—

(A) a respondent may take actions to dissipate or convert assets prior to the completion of the proceedings referred to in paragraph (1) and such assets would be necessary to comply with or otherwise satisfy a final enforcement order of the Commission pursuant to alleged violations or threatened violations specified in the notice instituting proceedings; or

(B) a respondent is engaged in actual or threatened violations of this Act or a Commission rule, regulation, restriction or order referred to in paragraph (1),

the Commission may issue a temporary order requiring the respondent to take such action to prevent dissipation or conversion of assets, significant harm to energy consumers, or substantial harm to the public interest, frustration of the Commission's ability to conduct the proceedings, or frustration of the

Commission's ability to redress said violation at the conclusion of the proceedings, as the Commission deems appropriate pending completion of such proceedings.

(5) REVIEW OF TEMPORARY ORDERS.—

(A) COMMISSION REVIEW.—At any time after the respondent has been served with a temporary cease-and-desist order pursuant to paragraph (4), the respondent may apply to the Commission to have the order set aside, limited, or suspended. If the respondent has been served with a temporary cease-and-desist order entered without a prior Commission hearing, the respondent may, within 10 days after the date on which the order was served, request a hearing on such application and the Commission shall hold a hearing and render a decision on such application at the earliest possible time.

(B) JUDICIAL REVIEW.—Within—

(i) 10 days after the date the respondent was served with a temporary cease-and-desist order entered with a prior Commission hearing; or

(ii) 10 days after the Commission renders a decision on an application and hearing under subparagraph (A), with respect to any temporary cease-and-desist order entered without a prior Commission hearing, the respondent may apply to the United States district court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order, and the court shall have jurisdiction to enter such an order. A respondent served with a temporary cease-and-desist order entered without a prior Commission hearing may not apply to the court except after hearing and decision by the Commission on the respondent's application under paragraph (1) of this subsection.

(C) NO AUTOMATIC STAY OF TEMPORARY ORDER.—The commencement of proceedings under subparagraph (B) of this paragraph shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.

(6) IMPLEMENTATION.—The Commission is authorized to adopt rules, regulations, and orders as it deems appropriate to implement this subsection.

SECTION 171 OF THE WORKFORCE INVESTMENT ACT OF 1998

SEC. 171. DEMONSTRATION, PILOT, MULTISERVICE, RESEARCH, AND MULTISTATE PROJECTS.

(a) * * *

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(e) ENERGY EFFICIENCY AND RENEWABLE ENERGY WORKER TRAINING PROGRAM.—

(1) * * *

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(8) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection, [$125,000,000] *$150,000,000* for each fiscal year, of which—

(A) * * *

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INTERNAL REVENUE CODE OF 1986

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Subtitle A—Income Taxes

CHAPTER 1—NORMAL TAXES AND SURTAXES

Subchapter A—Determination of Tax Liability

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PART IV—CREDITS AGAINST TAX

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Subpart C—Refundable Credits

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SEC. 36B. ENERGY TAX CREDIT.

(a) ALLOWANCE OF CREDIT.—In the case of an eligible individual, there shall be allowed as a credit against the tax imposed by this subtitle for the taxable year an amount equal to—

(1) for an eligible individual with applicable income of less than $6,000, the phase in rate times the applicable income;

(2) for an eligible individual with applicable income that is greater than or equal to $6,000 and is less than or equal to the phase down amount, the maximum energy tax credit; and

(3) for an individual with applicable income that exceeds the phase down amount, an amount equal to—

(A) the maximum energy tax credit minus; or

(B) the difference between the individual's applicable income and the phase down amount multiplied by .2.

(b) COORDINATION WITH ENERGY REFUND RECEIVED THROUGH STATE HUMAN SERVICE AGENCIES.—The amount described in subsection (a) shall be reduced by 1/12 for each month in which the individual or his or her spouse received a refund under section 432 of the American Clean Energy and Security Act of 2009.

(1) The Secretary of the Treasury shall promulgate regulations that instruct States on how to inform adult individuals who receive a refund under section 432 of the American Clean Energy and Security Act of 2009 of the number of months he or she received a refund and how such information shall be provided to the Internal Revenue Service.

(2) The Secretary of the Treasury shall establish a telephone and online system that allows an individual to inquire about the number of months she or he received such a refund.

(3) In the case of an individual that does not report the number of months a refund was provided under section 432 of the American Clean Energy and Security Act of 2009 or recorded an incorrect number of months, the Secretary of the Treasury shall adjust the energy tax credit based on the information received from States, provided that the Secretary of the Treasury has made a determination that the information meets a sufficient standard for accuracy.

(c) DEFINITIONS AND SPECIAL RULES.—For purposes of this section:

(1) ELIGIBLE INDIVIDUAL.—

(A) IN GENERAL.—The term "eligible individual" means any individual other than—

(i) any nonresident alien individual;

(ii) any individual with respect to whom a deduction under section 151 is allowable to another taxpayer for a taxable year beginning in the calendar year in which the individual's taxable year begins; and

(iii) an estate or trust.

(B) IDENTIFICATION NUMBER REQUIREMENT.—Such term shall not include any individual who—

(i) in the case of a return that is not a joint return, does not include the social security number of the individual; and

(ii) in the case of joint return, does not include the social security number of at least one of the taxpayers on such return.

For purposes of the preceding sentence, the social security number shall not include a TIN issued by the Internal Revenue Service.

(2) APPLICABLE INCOME.—Applicable income means the larger of—

(A) earned income as defined in section 32(c)(2), except that such term shall not include net earnings from self-employment which are not taken into account in computing taxable income; and

(B) adjusted gross income.

(3) PHASE IN RATE.—The Secretary of the Treasury shall compute the phase in rates each year for the energy credit for joint returns and for returns that are not filed jointly with respect to each relevant number of qualifying individuals such that the phase in rate equals the maximum energy tax credit divided by $6,000.

(4) MAXIMUM ENERGY TAX CREDIT.—

(A) IN GENERAL.—

(i) The maximum energy tax credit shall vary based on the number of individuals in the tax filing unit.

(ii) The maximum energy tax credit for a filing unit of a particular size shall be equal to the average annual reduction in purchasing power for low-income households of that household size, as calculated by the Environmental Protection Agency, that results from the regulation of greenhouse gas emissions under title VII of the Clean Air Act.

(iii) The Environmental Protection Agency, in consultation with other appropriate Federal agencies, shall calculate the maximum energy tax credit by August 31 of each year for the following calendar year using the most recent, reliable data available.

(B) ENERGY TAX CREDIT CALCULATION.—

(i) DISTRIBUTION.—For each calendar year, the Environmental Protection Agency shall determine pursuant to subparagraph (B)(iii) the aggregate reduction in purchasing power among all United States households that results from the regulation of greenhouse gas emissions under title VII of the Clean Air Act and distribute that aggregate reduction in purchasing power among all United States households based on—

(I) households' share of total consumption by all households;

(II) the carbon intensity and covered-emissions intensity of households' consumption; and

(III) the share of households' carbon and covered-emissions consumption that is not financed by Federal benefits subject to a cost of living adjustment that offsets increased carbon costs.

(ii) MAXIMUM ENERGY TAX CREDIT.—The maximum energy tax credit shall be equal to the arithmetic mean value of the amount allocated under clause (i) to households of a specified household size in the lowest income quintile. Tax filing units that include 5 or more individuals shall be eligible for the arithmetic mean value of the amount allocated under clause (i) to households that includes 5 or more individuals.

(iii) AGGREGATE REDUCTION IN PURCHASING POWER.—For purposes of this section, the aggregate reduction in purchasing power shall be based on the projected total market value of the emissions allowances used to demonstrate compliance with title VII of the Clean Air Act in that year, adjusted to reflect costs that were not incurred by households as a result of allowances freely allocated pursuant to section 782 of the Clean Air Act, as estimated by the Environmental Protection Agency, and calculated in a way generally recognized as suitable by experts in evaluating such purchasing power impacts.

(iv) INCOME QUINTILES.—Income quintiles shall be determined by ranking households according to income adjusted for household size, and shall be constructed so that each quintile contains an equal number of people.

(5) PHASE DOWN AMOUNT.—

(A) In the case of an eligible individual who has no qualifying individuals, the phase down amount shall be—

(i) $20,000 in the case of an individual who does not file a joint return; and

(ii) $25,000 in the case of a joint return.

(B) In the case of an eligible individual who files a joint return and has at least one qualifying individual—

(i) If the eligible individual has one qualifying individual, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a married couple with one qualifying child is ineligible for the earned income credit for the taxable year.

(ii) If the eligible individual has two qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a married couple with two qualifying children is ineligible for the earned income credit for the taxable year.

(iii) If the eligible individual claims three or more qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a married couple with three or more qualifying children is ineligible for the earned income credit for the taxable year.

(C) In the case of an eligible individual who does not file a joint return and has at least one individual qualifying individual—

(i) If the eligible individual has one qualifying individual, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a single individual with one qualifying child is ineligible for the earned income credit for the taxable year.

(ii) If the eligible individual has two qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a single individual with two qualifying children is ineligible for the earned income credit for the taxable year.

(iii) If the eligible individual has three or more qualifying individuals, the lowest income level that exceeds the phaseout amount as defined in section 32(b)(2) at which a single individual with three or more qualifying children is ineligible for the earned income credit for the taxable year.

(6) QUALIFYING INDIVIDUAL.—A qualifying individual is an individual whom the eligible individual claims as a dependent under section 151, or as a qualifying child for the earned income credit under section 32(c)(3) or the child tax credit under section 24, or both. The term qualifying individual does not include—

(A) someone claimed as a dependent under section 151 if that dependent is claimed as a qualifying child for the earned income tax credit or the child tax credit on a tax form by someone other than the eligible individual; and

(B) the eligible individual and, if a joint return, his or her spouse.

(7) NUMBER OF PEOPLE IN THE TAX FILING UNIT.—The number of people in the tax filing unit shall equal the sum of the number of qualifying individuals plus—

(A) in the case of a joint return, 2; and

(B) in the case of a return that is not filed jointly, 1.

(d) TREATMENT OF POSSESSIONS.—

(1) PAYMENTS TO POSSESSIONS.—

(A) MIRROR CODE POSSESSION.—The Secretary of the Treasury shall pay to each possession of the United States with a mirror code tax system amounts equal to the loss to that possession by reason of the amendments made by this section. Such amounts shall be determined by the Secretary of the Treasury based on information provided by the Government of the respective possession.

(B) OTHER POSSESSIONS.—The Secretary of the Treasury shall pay to each possession of the United States which does not have a mirror code tax system amounts estimated by the Secretary of the Treasury as being equal to the aggregate benefits that would have been provided to residents of such possession by reason of the amendments made by this section if a mirror code tax system had been in effect in such possession. The preceding sentence shall not apply for a given taxable year with respect to any possession of the United States unless such possession has a plan, which has been approved by the Secretary of the Treasury, under which such possession will promptly distribute such payments to residents of such possession.

(2) COORDINATION WITH CREDIT ALLOWED AGAINST UNITED STATES INCOME TAXES.—No credit shall be allowed against United States income taxes for any taxable year under this section to any person—

(A) to whom a credit is allowed against taxes imposed by the possession by reason of the amendments made by this section for such taxable year; or

(B) who is eligible for a payment under a plan described in paragraph (1)(B) with respect to such taxable year.

(e) AMOUNT OF CREDIT TO BE DETERMINED UNDER TABLES.—The amount of the credit allowed by this section shall be determined under tables prescribed by the Secretary.

(f) INFLATION ADJUSTMENTS.— In the case of any taxable year beginning after 2009, dollar amounts in subsection (c)(4)(A) shall be increased by an amount equal to such dollar amount, multiplied by the cost-of-living adjustment determined under section 1(f)(3) of the Internal Revenue Code of 1986.

(g) TREATMENT IN OTHER PROGRAMS.—The energy tax credit provided under this section shall not be considered income or resources for any purpose under any Federal, State, or local laws, including, but not limited to, laws relating to an income tax or public assistance program (including, but not limited to, health care, cash aid, child care, nutrition programs, and housing assistance), and no participating State or political subdivision thereof shall decrease any assistance otherwise provided an individual or individuals because of the receipt of an energy tax credit under this Act.

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MINORITY AND ADDITIONAL VIEWS

MINORITY VIEWS ON H.R. 2454

SUMMARY

H.R. 2454 is proposed legislation that if enacted would impose major new costs and expansive regulatory controls over a weak and struggling U.S. economy. If implemented, this legislation threatens to lock the United States into an era of economic stagnation and global decline.

The bill would impose new greenhouse gas emissions standards and efficiency standards across the U.S. economy, create an untested and complex multi-trillion dollar cap-and-trade program, direct the Environmental Protection Agency (EPA), the Department of Energy (DOE) and other agencies to promulgate a host of new regulations on American businesses and enterprise, and authorize more than a trillion dollars of taxpayer outlays. This bill if enacted would result in a massive expansion of the EPA and other federal regulatory control over virtually all major sectors of the U.S. economy.

If enacted, the bill would impose enormous new direct and indirect costs on U.S. consumers and would have major implications for financial markets and international trade and commerce. The full costs of implementing the bill are not known and the bill was considered and reported by the Committee before cost estimates of all the titles were prepared or made available. While prices for energy and goods and services would rise for virtually all Americans, certain regions of the country will be particularly adversely affected by the legislation. All amendments offered by the Minority to suspend the bill in the event of significantly increased energy prices, including amendments offered by Representative Lee Terry (R–NE), Representative Roy Blunt (R–MO), and Representative George Radanovich (R–CA), were defeated. An amendment offered by Representative Marsha Blackburn (R–TN) that would have required that the costs of compliance be reflected in utility bills, fuel pump bills, and manufactured products and food labels, was also defeated.

Enactment of this legislation will unquestionably cause job losses in the U.S. in the manufacturing, industrial and other energy-intensive sectors, including in those industries that produce globally-traded commodities. The bill would dramatically increase energy costs for energy-intensive industries and put U.S. companies at a competitive disadvantage with foreign competitors in China, India, and other developing countries. While the proponents of the bill contend that an unspecified number of clean energy jobs will be created in the coming years, modeling done to date concludes that the number of jobs lost would far exceed any jobs created. All amendments offered by the Minority, including amendments of-

fered by Representative Fred Upton (R–MI), Representative Tim Murphy (R–PA), Representative Mike Rogers (R–MI), Representative John Shimkus (R–IL), and Representative George Radanovich (R–CA) to protect against high national unemployment or job losses in specific industries resulting from implementation of the bill, such as job losses in the steel, coal, automotive and agriculture industries, were all defeated along partisan lines.

While imposing a massive new energy tax on American consumers and businesses, as a practical matter the bill will not be effective in reducing overall global greenhouse gas emissions. Global climate change is an international issue and the U.S. unilateral efforts will be ineffective in reducing global emissions as long as the world's major emitters refuse to undertake similar emissions reduction programs. An amendment offered by Representative Mike Rogers (R–MI) that would suspend the bill if China and India do not adopt emissions programs as stringent as those in the U.S. was also defeated in a straight party-line vote.

TITLE I

Sec. 101—Combined efficiency and renewable electricity standard

Section 101 is a combined efficiency and renewable electricity mandate which will penalize consumers in areas of the country without ample wind resources. This one-size-fits-all federal mandate requires utilities to purchase renewable electricity, even if it is considerably more expensive than the conventional sources of electricity that are currently generated. The definition of "renewable" in the base text is incredibly limited—it picks and chooses favored types of electricity even among renewable sources, declaring that all hydroelectric electricity does not qualify, and that only a limited selection of biomass would be eligible. Democrats rejected, on a 26 to 32 vote, an amendment offered by Representative Greg Walden (R–OR), which would have replaced the flawed definition of "renewable biomass," ensuring biomass from both public and private lands would be treated equally under the act.

This section also raises the question of why there are so many different ways to try to address the same concern in the bill—if the goal of the legislation is to reduce greenhouse gas emissions, then why are we mandating certain types of electricity be purchased, instead of simply requiring that low-emitting electricity be generated? At a February 26, 2009 hearing the Energy and Environment Subcommittee held on renewable electricity mandates, a state public utility commissioner testified that "establishing a uniform national RPS focused exclusively on a limited number of sources like wind, solar, biomass or geothermal, without regard to crucial regional differences, will unnecessarily drive up electricity costs, jeopardize reliability, and divert capital that will be needed to achieve other objectives like meeting aggressive carbon targets." Republicans offered a number of amendments to remedy this narrow standard. An amendment by Representative Greg Walden (R–OR) would have added language to the bill allowing nuclear energy, biomass, new hydroelectric power, and any other comparable low-emission source of energy to qualify for the same provisions

provided under this act's renewable energy standard. If America is to reduce carbon dioxide emissions and increase energy independence, we should encourage all sources of clean, domestic energy. This amendment was rejected as part of an en bloc vote of 22 to 36. In a similar vein, Representative Cliff Stearns (R–FL) offered an amendment to afford existing nuclear power plants the same benefits provided to new nuclear power plants under the bill. Inexplicably, Section 101 effectively gives new nuclear plants partial credit as renewable energy but does not give any credit to existing plants. Nuclear energy plants, whether they are already operating or constructed years from now, all provide the dual benefit of reducing national carbon emissions while promoting energy independence. Unfortunately, this amendment was also rejected, by a vote of 26 to 30.

Secs. 111–116—Carbon capture and sequestration

Sections 111–116 (Subtitle B of Title I) of the bill seek to facilitate the commercial-scale deployment of carbon capture and sequestration (CCS) technologies and set performance standards for new coal plants. As currently drafted, however, the timeframes for widespread deployment of CCS technologies, as well as for meeting the new performance standards, are not 2 achievable. Notwithstanding the fact that coal currently represents approximately 50% of our national electricity, and is a domestic, low-cost and reliable source of electricity, the Minority believes that this bill is unfortunately unlikely to result in any new coal plants being built in the United States.

As an initial matter, Sections 111 and 113 would require the EPA to issue a national strategy for CCS deployment and to commission various studies and reports by academics, including reports on existing environmental federal and state laws that may apply to geologic sequestration sites for carbon dioxide, regulatory barriers to CCS deployment, and how and under what circumstances the environmental statutes for which EPA has responsibility would apply to carbon dioxide injection and geologic sequestration activities. These provisions serve to highlight the fact that currently there is not a comprehensive statutory and regulatory framework in place for carbon capture and sequestration sites and facilities, and that significant legal and regulatory uncertainty surrounds the deployment of CCS technologies. Yet, the legislation does nothing to eliminate barriers or solve problems identified by these studies and reports. We believe that if the authors want a future with coal, the bill should be strengthened in these sections to require EPA to explicitly address legal obligations and potential liabilities associated with the capture, storage and sequestration of carbon and carbon dioxide.

Section 112 would require EPA to, within two years, issue new regulations to minimize the risk of escape to the atmosphere of carbon dioxide injected for purposes of geologic sequestration. Given the significant technical and other issues involved, not the least of which is the lack of an understanding of sequestration, two years is not likely to be adequate time to complete such a rulemaking. Nor is it clear what would happen to CCS development if these new rules were not issued timely by EPA or if they were subject

to prolonged legal challenges. Section 112 would also require EPA to issue, within one year of enactment, new regulations under the Safe Drinking Water Act (SWDA) for permitting carbon dioxide geologic sequestration wells and to address financial responsibilities. It is not clear whether or how such regulations would affect proposed rules already issued by EPA on July 25, 2008, under the SDWA relating to underground injection of carbon dioxide for the purpose geologic sequestration. It is also not clear whether the bill intends that the new regulations impose financial responsibility requirements to cover risks to air, ecosystems or public health associated with CCS technology deployment, which are areas for which financial responsibility mechanisms may not be available. Further consideration should be given to whether the timelines under this section for issuing the regulations are realistic, and the section should be amended to more fully address the scope of the regulations to be issued by EPA relating to financial responsibility. Further, we believe this section creates overlapping and potentially conflicting regimes under the Clean Air Act and the SDWA.

Section 114 seeks to facilitate CCS technology development by authorizing formation of an industry "Carbon Storage Research Corporation." As currently drafted, the corporation would operate as an affiliate of the Electric Power Research Institute and would be authorized to make financial assessments on deliveries of fossil fuel-fired electricity to retail consumers in the amount of between $1 billion and $1.1 billion annually for 10 years. The corporation would be authorized to use those funds for competitively awarded grants, contracts and financial assistance to eligible entities to accelerate commercial deployment of CCS technologies. While the legislation seeks to support at least 5 commercial-scale demonstration projects, it is not clear that the projects to be funded would in fact advance the type of large-scale, integrated projects for capture and sequestration that would be needed for full-scale commercial deployment of CCS technologies necessary to meet the performance standards for new coal plants. The bill also does not address whether the corporation would be subject to any prior federal or state approvals before funds could be distributed and used. If the purpose was only to do demonstration projects, that is one matter, but we believe that Section 114 seeks to be the jumping off point for the future of coal. That being the case, its provisions assure that coal has a very bleak future.

Section 115 would require EPA to establish a program to distribute emission allowances to support commercial deployment of CCS in electric generation and industrial operations. The Majority's June 2, 2009, bill summary indicates that the estimated value of the allowances allocated for investment in CCS technologies is $60 billion through 2025. While this section of the bill has been amended to provide certain eligibility criteria, this section is highly complex and would benefit from clarification and greater direction to EPA about how it should be implemented. As currently drafted this section contains a lengthy and complex set of provisions authorizing reverse auctions and/or the award of bonus allowances to the owners or operators of eligible projects, and delegates broad rulemaking and decision-making authority to EPA to administer the program. Given the complexity and importance of this section

and the very significant amount of funds at issue, additional review and revision of these provisions is warranted. We are concerned that without these changes, potential fraud, mismanagement and arbitrary application will result.

Finally, Section 116 would establish performance standards for new coal-fired power plants that would require a 50% reduction for units permitted between January 1, 2009, and January 1, 2020, and a 65% reduction for units permitted after January 1, 2020. The compliance date for plants permitted between 2009 and 2020 for meeting these standards would be not later than January 1, 2025, and potentially earlier in the event the EPA Administrator were to make certain determinations relating to CCS technology availability. The compliance date for new plants permitted after 2020 would be upon commencement of operations. As currently drafted, the 2025 compliance date for any plants that would be constructed during the next decade does not appear to be achievable given that the development, demonstration and deployment of such technologies present significant technical, regulatory, legal and other challenges. To the contrary, the Department of Energy (DOE) has advised that larger-scale (near commercial scale) CCS projects take upwards of 10+ years to complete, and may require more time because they are complex in terms of site selection, characterization, carbon dioxide injection and post-injection monitoring. This section needs to be written in a less aspirational and more realistic fashion.

Given the many challenges associated with CCS technology deployment, including the technical and siting issues, the time required for necessary environmental reviews, the current lack of a comprehensive regulatory and statutory framework for CCS deployment, and the need to address with certainty both near- and long-term liability issues associated with *stored* carbon dioxide, the CCS provisions of the bill as currently drafted call into question whether under this legislation there is a serious desire to have any new coal plants built in the United States. If not, this would result in increased energy costs to American consumers and businesses, and significant adverse consequences for regions of the country that rely primarily on coal-based electricity.

Sec. 141–143—Smart Grid Advancement

Subtitle E on Smart Grid Advancement establishes numerous new rulemakings and bureaucratic processes, some of which are only tangentially related to smart grid advancement. In particular, Section 144 is unclear—it establishes a new process requiring unspecified reductions in peak electricity usage. It also refers to a "National Electric Reliability Corporation" which is undefined in the bill and does not exist; perhaps this is meant to reference the North American Electric Reliability Corporation, an organization whose purview extends beyond U.S. borders and is therefore not purely a national organization.

Sec. 151–153—Transmission planning

Section 151, the transmission planning section, sets up a three-year regional and national planning process. This provision may actually slow transmission development; existing transmission plans

could be delayed in favor of waiting for the results of this new national plan. When the new plan is developed, there is no direction that anything be done with the plan other than a report to Congress. Given the massive redesign of the national electric system which this bill's carbon cap and renewable mandate would require, this bill should have included a transmission planning and siting proposal which would actually result in a more reliable electric system. Representative Joe Barton (R–TX) offered a substitute amendment which would have given the Federal Energy Regulatory Commission authority to site electric transmission comparable to the authority it now has over the natural gas pipeline network. This amendment was rejected by a vote of 19 to 35.

At the conclusion of Title I consideration, Rep. Roy Blunt (R–MO) offered an amendment to suspend the Waxman-Markey bill in the event of a 10 percent or greater increase above 2009 electric rates in retail residential electricity prices in one or more Census Divisions in the United States, but that amendment was defeated by a partisan vote. Rep. Fred Upton (R–MI) also offered four amendments to protect against residential electricity account arrearages but those amendments were also defeated along partisan lines.

TITLE II

Sec. 201—Greater energy efficiency in building codes

Upon the date of enactment of this bill, a 30 percent increase in building efficiency is required. Effective January 1, 2014, for residential buildings and January 1, 2015, for commercial buildings, an additional 50 percent increased efficiency is required. Subsequent three-year targets of additional five percent increases in efficiency are mandated through January 2030. These targets and deadlines were established with no concern for cost and with no assessment of feasibility. Moreover, section 201 requires each state to adopt the national energy efficiency building code. Failure by the states to adopt the code results in the federal government taking over code enforcement, effectively enforcing legislation never enacted by the state. In addition, the federal government would be empowered to assess civil penalties for failure to adopt and enforce the national code. This mandate raises potential constitutional questions under the Tenth Amendment, where powers not expressly granted to the federal government in the Constitution—like zoning and building codes—are reserved to the states and local governments.

Furthermore, Congress's traditional constitutional authority to regulate industry under the Commerce Clause does not extend to housing, raising additional questions about the constitutionality of provisions of this section. Section 201 is fraught with Constitutional implications, and this section 201 was preserved by the Majority who almost unanimously voted against the amendment offered by Representative Steve Scalise (R–LA) to strike this troubling section.

Sec. 204—Building energy performance labeling program

Real property, by legal designation, is unique. A labeling system of homes and buildings could never begin to incorporate all of the variable, preferences, and elements that make residential and com-

mercial buildings distinct and attractive to potential purchasers. The energy profile of a home varies dramatically from one to the next depending on a range of variables for which a government agency cannot account to any degree of scientific precision when formulating the labeling system. For example, orientation of the home on its lot, number of shade trees surrounding the home, local climate, number of occupants in the home, decision of residents to use or not use the air conditioning and heat. Moreover, the other values of the home cannot be quantified in a labeling system. For example, historical character, safety features, and original fixtures. A "one-size-fits-all" numerical rating for something as diverse as housing could only serve to mislead consumers and distort the housing market.

By supporting a labeling system—and voting against the amendment offered by Mr. Cliff Stearns (R–FL) to remove Section 204 of the bill—the majority stigmatizes existing housing stock while providing no guidance and no incentives for upgrading the home.

Sec. 211—Lighting efficiency standards

Section 211 adopts consensus standards for portable lighting fixtures that would take effect in 2012. In particular, this section of the bill adopts California's portable lighting fixture standard as the national standard. The rationale is that manufacturers of lamps cannot compete with two sets of standards, i.e., California's and the rest of the country.

This section would also require the Department of Energy (DOE) to publish amended standards in 2014 to take effect in 2016, or to determine if no new standards are needed. The section also provides that if California adopts any new regulations concerning portable lighting fixtures prior to 2014, federal preemption would not apply. As currently drafted, these provisions would create the potential again for two competing standards in 2014.

Section 211 should be amended to delete the provisions requiring DOE to set new standards in 2014 and the provisions exempting California from federal preemption. Such an amendment would eliminate the possibility of conflicting California and federal standards for portable lighting fixtures, provide certainty for manufacturers and avoid undue additional costs for consumers.

Sec. 213—Appliance efficiency standards

The hit-and-miss approach to appliance efficiency standards taken when drafting this section is baffling at best. Despite nary a hearing to address specific appliance efficiency improvements, the majority has decided to hop into American hot tubs, literally. This section mandates efficiency improvements in portable electric spas, hot food cabinets, and water dispensers to name a few selected items. Three amendments were offered en bloc by Representative George Radanovich (R–CA) that would have prevented the federal government's intrusion and imposition of regulations on portable electric spas, hot food cabinets, and water dispensers. Restricting the production of these goods will damage more than just these industries. These regulations will hinder consumer choice, raise prices, and expand federal government regulation into more aspects of daily life.

TITLE III

Title III of this act seeks to reduce the quantity of United States greenhouse gas emissions without regard to costs to households, businesses, and industry; without regard to the availability of the necessary technology to maintain clean, inexpensive energy; without regard to effectiveness towards reducing global emissions; and without regard to whether the provisions will impede the economic growth of the United States and the future economic welfare of its citizens.

There is no safety valve or exit ramp. If household energy costs increase by hundreds of dollars or regions lose thousands of jobs because of this legislation, there are no provisions to rescind the scheme. If carbon capture and sequestration technology for the use of clean and abundant coal-fired electricity has not become widely available and fully deployable, there are no provisions to rescind the scheme's effective ban on new coal generation. There is no way out. If enacted into law, this legislation—especially as outlined in this title—is designed to raise the price of energy on American consumers, businesses, and industry. Raising energy costs is the only way this legislation can force the reduction of greenhouse emissions from the inexpensive, abundant, and reliable fossil energy Americans use to live and work. Any provisions to shield consumers from costs, merely rearrange the costs among regions or income classes, and have no effect on the overall impact on the American economy. At the same time, the increased energy costs will place the United States at a competitive disadvantage to many developing nations, losing jobs and economic opportunity overseas, as has been amply discussed before the Committee in expert and industry testimony during legislative hearings.

During the Committee markup, Republicans offered numerous amendments to suspend the cap-and-trade provisions of the bill, should it increase electricity prices to certain levels or should job losses, such as in the steel, coal, or automotive industry, reach certain levels. All such amendments were defeated.

Sec. 311—Global warming provisions

Section 311 outlines the schedule for greenhouse emissions cuts, and establishes three primary programs for reducing greenhouse gases: the cap on large domestic sources, the program to reduce tropical deforestation, and the offset program. Despite the substantially higher energy costs, it is highly questionable whether the emissions reduction programs will make enough impact on global greenhouse emissions to justify the costs.

First, it is not established that emissions reductions in the United States will have any meaningful impact on global emissions. There are no provisions in the legislation to require comparable international participation in an emissions reduction scheme. Republicans, led by Representative Mike Rogers (R–MI), offered an amendment that would require such action before the U.S. scheme took effect. The amendment was defeated by a party-line vote of 23–36.

International participation is essential if the goals are to reduce global emissions and stabilize levels in the atmosphere. Global par-

ticipation is also essential to ensure the international community does not take strategic and competitive advantage of higher U.S. energy costs.

The bill currently does not require binding action from the largest and fastest growing greenhouse gas emitters, such as China and India, or the fast growing developing world, which at present emit more greenhouse gases than the developed world combined, according to the Energy Information Administration's International Energy Outlook (2009). At the current pace, the United States could cut its current energy-related emissions to zero, and by 2030 annual global energy-related carbon emissions are still projected to be nearly seven billion metric tons more than 2005—equivalent to a doubling of all of North America's current emissions in 20 years.

In the meantime, all evidence from the developing world indicates no interest in submitting to equivalent binding emissions reductions to those required in this legislation. In point of fact, India and China have repeatedly and publicly stated no interest in binding emissions caps or emissions rationing.

The United States cannot, moreover, assess with any reliability the amount of greenhouse gases these nations emit. The emissions data China and India submitted in 2004 to the United Nations, pursuant to the 1992 United Nations Framework Convention on Climate Change, were estimates for 1994 emissions, and have yet to be updated. Indeed, the most recent emissions data reported by most large developing countries are now 12 years older than what the United States and other developed countries have reported. Moreover, as a bloc, the developing countries, including China, Brazil, and India, refuse to bring reporting regimes into closer accordance with the developed countries.

These facts form part of the international backdrop against which this legislation should be assessed. Not only would this cap-and-trade scheme be an ineffective policy if developing nations do not reduce emissions, it would weaken U.S. economic competitiveness. During legislative hearings, witnesses could provide no credible evidence that foreign nations would avoid taking economic advantage of reduced U.S. competitiveness. The United States, if this legislation is enacted, would unilaterally surrender competitiveness with no reliable assurance that it can turn back if the international community fails to take comparable action.

Second, emission reduction goals are not based on any clearly defined, realistic, or evidentiary foundation relating to impacts on world global emissions—or temperature. Indeed the only potential factual reference we find for the target of an 80% reduction of emissions from 2005 levels is in the Majority's report on this bill. This report references a handful of the most stringent emissions "stabilization scenarios" examined by the Intergovernmental Panel on Climate Change (IPCC)—the so-called Category I scenarios, composed of the six most extreme of some 177 model runs organized into seven categories (see the Intergovernmental Panel on Climate Change, Climate Change 2007: Mitigation of Climate Change, Table TS.2). These Category I scenarios require global emissions to have peaked and begun declining between the years 2000 and 2015. The reality that global emissions have been accelerating over most of this time period, and are projected to continue to increase

for the next 30 years, calls into serious question the validity of these targets and their use as a realistic goal in this legislation. Taken literally, there are implausibly only a few years for proponents of this legislation to convince China, India and the rest of the developing world to adopt binding emissions caps and commence immediate emissions reductions to comport with these targets. The IPCC also reports these scenarios depend on current technology "readiness" of carbon capture and sequestration and other undeveloped technologies along with "simultaneous emissions mitigation in developing countries"—factors plainly at odds with current reality. We should add that such information about the scenarios or emissions targets was not examined in any hearing relating to this legislation.

Third, section 311 is premised on some critical findings that minimize the key uncertainties and facts about the Earth's climate. For example, the legislation does not define global warming, although the text suggests global warming is solely the result of man-made, or anthropogenic, emissions and that any effects of global warming on climate therefore must be traced to these man-made emissions. This construct ignores the scientific consensus understanding that global warming is first and foremost a natural phenomenon and that climate change is not solely or necessarily the result of man-made emissions. Reports by the National Academies and the IPCC make clear that climate change represents the natural long-term fluctuation in regional temperature and weather patterns. It is equally clear that, over millennia, natural climate change has occurred and has threatened public health and welfare and necessitated constant human innovation and adaptation. Hearings before the Subcommittee on Energy and the Environment in the 111th and 110th Congresses provided testimony to these facts.

Reviews of scientific studies, including by the IPCC and the National Academies, and testimony before the Committee suggest that combined anthropogenic greenhouse gas emissions may contribute to a long-term global warming trend. This has also been reported at Committee hearings. However, testimony has indicated that scientists cannot quantify how much anthropogenic greenhouse gases *may* be effecting the natural global temperature change and how much that *may* be effecting climate change impacts, especially in the future. The IPCC consensus document states that "the complexity of the climate system and the multiple interactions that determine its behaviour impose limitations on our ability to understand fully the future course of Earth's global climate."

Given this complexity and uncertainty about man's contribution to global warming and climate change, we recognize that prudent policy calls for taking cost-effective measures to reduce greenhouse gas emissions, but this must be done while ensuring continued United States economic growth, innovation, and industrial strength. Unfortunately, the provisions setting forth emissions reduction targets fail to acknowledge the scientific uncertainty or the economic risks. The schedule of reductions cannot be linked to any measure of effectiveness. The related reviews required by EPA and the National Academies do not provide any clear mechanisms for rescinding the reduction targets if they prove ineffective or too costly to the American public.

The costs of this legislation are too high to impose such emissions targets without sufficient factual or practical foundation.

Sec. 311—Reducing global warming pollution

With regard to offsets, Section 311 provides for the use of a combination of domestic and international offsets that covered entities can purchase to meet emissions obligations. If not enough domestic offsets are available, up to three-quarters of offsets used for compliance may come from developing nations. Reliance on international offsets is controversial on effectiveness and cost-control grounds.

There are outstanding and difficult challenges concerning the integrity of offset markets, according to two 2008 evaluations by the Government Accountability Office (GAO). There is inherent uncertainty in certifying reductions of emissions that have not occurred. There are related challenges in measuring and validating the reductions to some acceptable standard, domestically and, especially, internationally. The GAO concluded that "the use of carbon offsets in a cap and trade program can undermine the system's integrity, given that *it is not* possible to ensure that every credit represents real, measurable, and long-term reductions in emissions." (Emphasis added.)

The larger the number, range, and geographic scope of offset projects allowed into the regulatory scheme, the more integrity of emissions reductions becomes an issue. Available evidence, as provided by GAO and other witnesses before the Subcommittee on Energy and the Environment, shows offset markets have not worked as cost-effectively as promised. The existing international offset program administered by the United Nations in particular has proved susceptible to abuse.

Analysis provided during climate policy hearings before the Committee revealed that the existing international system fails as a market because it has animated accounting tricks that allow participants to manufacture offset credits at little or no cost. The system has also promoted substantial strategic behavior on the part of developing nations aimed at manipulating baselines in order to increase the number of offsets created. And, as participation in the energy sectors of developing countries has expanded, the regulatory challenge to determine whether these projects' emissions reductions are "additional" to what would have happened in the absence of the international offsets subsidy has increased. Meanwhile, the program has failed as a subsidy because the developed world has had to purchase the offsets emissions reductions at an extremely high premium—10 to 100 times the cost of most of the emissions reductions.

Against this record, there is no assurance international abuse can be avoided with additional EPA or other regulatory oversight. While provisions provide for EPA determination as to the quality and additionality of domestic or international offsets, the bill continues to allow the EPA to modify or omit integrity requirements "if not feasible." Further, while the EPA is directed to conduct random audits of offsets projects, it is not evident how the Administrator could successfully conduct random audits of international offsets. What agreements with China and other nations are there to allow audits of offsets projects by U.S. officials? Given the experi-

ence and evidence collected by the Committee with regard to international inspections of food and drug products imported into the United States, there is little assurance offset audits in China or the developing world can be any more frequent or reliable.

Any such offset subsidies from U.S. covered entities will effectively represent a substantial wealth transfer to the developing world. The EPA, in its own analysis, notes that the availability of offsets drastically affects the cost of compliance with the cap-and-trade program. In its analysis, EPA wrote that without international offsets the allowance price would increase 96 percent. Absent the availability of international offsets, or severe restriction because of strict EPA regulation and international competition for the projects, the costs imposed on Americans by the cap-and-trade scheme outlined in this legislation will be substantially higher than proponents advertise.

Section 311 also creates a mechanism to use allowances and auction revenues to support a complicated and untested international program to prevent tropical deforestation. This untested program presents reliability questions similar to those created by reliance on international offsets. Integrity issues aside, this provision, if enacted, effectively involves transferring energy tax funds generated domestically to developing countries. Whatever the merits or weaknesses of this program, the transfer of funds internationally effectively reduces what is available for domestic relief from higher energy prices.

Finally, accounting for the risk that offsets or the tropical forest program do not effectively reduce international emissions and the cost-benefit of these mechanisms for global emissions reduction is called further into question. It is upon such questionable foundation that the legislation provides for the transfer of tens of billions of dollars to international projects (and jobs) that we believe could be more effectively spent providing jobs in the United States.

Sec. 321—Disposition of allowances

Section 321 provides details on the distribution of free allowances and auction revenues to utilities and other affected sectors. As it was with the Emissions Trading Scheme in Europe, special corporate interest support for caps and emissions rationing was not possible without ensuring valuable allowances were allotted to these groups. The ostensible purpose of distributing free allowances is to reduce job losses and prevent increases in consumer (commercial and residential) electricity and heating bills. Despite such goals, the funds are not necessarily distributed directly to consumers. For example, with regard to natural gas consumer allowances, the states will actually administer half the funds for natural gas energy efficiency programs rather than provide for relief on utility bills. The section does not protect consumers from higher energy costs. It is the higher costs that drive the cuts in CO_2.

All of the targeted spending of the allowances induces additional inefficiencies to the program that will raise its costs on the economy. Giving allowances to the chosen few just redistributes the economic pain to others. Moreover, every dollar of allowances given to one group is a dollar's worth that cannot be used for cutting taxes or reducing the deficit. According to the Congressional Budget Of-

fice, under both Directors Orszag and Elmendorf, even if all the allowances are allocations given away to industry and affected sectors, the cap-and-trade scheme will still lead to price increases.

Sec. 331—Greenhouse gas standards

Representative Marsha Blackburn (R–TN) offered an amendment that would establish that carbon dioxide, water vapor, and other greenhouse gases are not air pollutants under the Clean Air Act. This amendment would have prevented the Environmental Protection Agency from imposing intrusive regulations into all aspects of American lives. Throughout the mark-up and the series of hearings preceding the legislation's passage, Members warned that if Congress does not act on this issue, the EPA would. The Blackburn amendment acknowledged this risk and would have prevented EPA action without forcing Congress's hand before the issues were properly explored and consensus was established. The Blackburn amendment would have taken the EPA variable out of the equation and would have allowed Congress to explore the topic fully, with additional hearings and plenty of time for regular order, including a Subcommittee mark-up. This amendment failed along strict partisan lines.

Sec. 335—State programs

As written, this bill allows states and localities to enforce their own regulations of greenhouse gases covered by the cap after 2017. Until 2012, and beginning again in 2018, states could enforce their own greenhouse gas emissions cap-and-trade programs in addition to the federal cap-and-trade program established under the Waxman-Markey bill. One major premise touted by the Majority is that the complex cap-and-trade scheme will provide industry and capital markets with certainty to invest in the green technologies of the future, the power sector, affected industries, or new clean technologies for coal or the oil industry. This certainty is compromised without a permanent preemption of state and local regulation of greenhouse gas emissions. This section should be amended to preempt states from implementing or enforcing their own cap-and-trade programs. This would avoid potentially duplicative, conflicting and inconsistent state and federal regulatory regimes that would impose additional costs, regulations and burdens on U.S. consumers and businesses.

Sec. 336—Enforcement

Section 336 addresses enforcement relating to Title III of the bill. While the current version of the bill has eliminated the "Citizens Suits" provisions that were offered in the original discussion draft of the bill, under the current version of the bill, subject to certain limitations any person could still seek to bring a civil action against any other person for violation of the new greenhouse gas emission standards under Title III of the bill. In particular, under Section 304 of the Clean Air Act as amended elsewhere by the bill, plaintiffs could bring citizen suits to enforce the new greenhouse gas emissions standards.

This section should be amended to add a new paragraph focusing any citizen suits to enforce any of the provisions of Title III of the

bill only on the EPA Administrator. If citizen suits are allowed to go forward against any person, it is likely that there would be a substantial amount of new climate change litigation brought against companies throughout the United States in all of the sectors of the economy regulated by the bill. While a windfall to lawyers, such litigation would impose significant costs and burdens on those companies in addition to the already enormous direct and indirect costs imposed by the bill. An amendment to limit citizen suits would prevent excessive or unwarranted litigation and protect U.S. companies and ultimately U.S. jobs and consumers.

Subtitle D—Carbon market assurance

The bill provides for the establishment of a regulated allowance market where market participants will engage in the trading of regulated allowances and regulated allowance derivatives. While the bill does provide a certain level of market protection comparable to the CFTC regulatory regime in the futures market, the bill does not ban speculators from participation in this market. Therefore, hedge funds, proprietary trading desks and sovereign wealth funds will be able to play the market and thus impact the price of carbon. Representative Steve Scalise (R–LA) introduced an amendment that would have limited participation in the market to covered entities, but the amendment was defeated by a vote of 20–32.

During the summer of 2008, Congress was exploring the link between speculation and the increase in food and gas prices. Speculation can lead to price volatility and ultimately higher prices in the traded contract, which will lead to higher energy costs for the average American ratepayer in this new market.

Sec. 355—Limitation on eligibility to purchase a credit default swap

In general, it is important to note that this bill delves into the derivatives market in a far-reaching way, including by banning naked credit default swaps. The derivatives market does need regulatory reform, but such reforms should take place after extensive hearings within the Committee. Much of this language was added only to the Amendment in the Nature of a Substitute, and therefore there was not sufficient time for review and analysis, not to mention no opportunity for a hearing on this topic.

TITLE IV

By subjecting domestic employers to a costly regulatory system, the bill places American jobs at a double disadvantage: competitive disadvantage vis-a-vis their foreign competitors and pressure to move jobs overseas to countries that do not unilaterally disadvantage manufacturing or other energy intensive activities.

Section 401 amends section 762 of the Clean Air Act and states: "Congress finds that the purposes of this part, as set forth in section 761, can be most effectively addressed and achieved through agreements negotiated between the United States and foreign countries." Instead of rushing this bill through Committee markup, including by skipping the subcommittee mark-up, international negotiations should have taken place prior to this legislation being

implemented. This would ensure that unilateral actions taken by the United States would not be negated by emissions from India and China.

Section 425 and section 426 of the bill address climate change worker adjustment assistance. A far better alternative to addressing the job losses that will inevitably be caused by the enactment of this bill was proposed by several Republican amendments.

Representative Fred Upton (R–MI) introduced an amendment to protect domestic employment that would have required the Administrator of the EPA, in consultation with the Secretary of Labor, to prepare an annual report to Congress on the average national unemployment rate, and if the unemployment rate for the prior year surpassed 15% as a result of implementation of the 13 bill, then the bill shall sunset. The amendment was defeated by a vote of 21–34. Representative Tim Murphy (R–PA) introduced an amendment to protect the U.S. steel industry that would have required the Administrator of the EPA, in consultation with the Secretary of Labor, to prepare an annual report to Congress setting forth the number of domestic jobs that been lost in the U.S. steel industry as a result of implementation of the bill, and the bill shall sunset if the total number of job losses in the steel industry exceeded 10,000. The amendment was defeated by a vote of 20–35. Representative Mike Rogers (R–MI) offered three separate amendments that would have required the Administrator of the EPA, in consultation with the Secretary of Labor, to prepare an annual report to Congress on the number of domestic jobs in the auto parts, auto and transportation manufacturing industries, and the bill shall sunset if there were any job losses in each of these industries as a result of the implementation of the bill. This series of amendments offered en bloc was defeated by a vote of 22–32. Representative John Shimkus (R–IL) introduced an amendment that would sunset the bill if two or more coal mines were to close as a result of this bill. The amendment was defeated by a vote of 22–34. Representative George Radanovich (R–CA) introduced an amendment that would sunset the bill if the EPA Administrator determined that 43,846 or more jobs were lost in the agriculture industry in the United States in the prior year due to implementation of the bill. The amendment was defeated by a vote of 22–36.

JOE BARTON.
FRED UPTON.
CLIFF STEARNS.
NATHAN DEAL.
GEORGE RADANOVICH.
GREG WALDEN.
ROY BLUNT.
RALPH M. HALL.
ED WHITFIELD.
JOHN SHIMKUS.
STEVE BUYER.
JOSEPH R. PITTS.
LEE TERRY.
TIM MURPHY.
SUE WILKINS MYRICK.
MICHAEL BURGESS.

MARSHA BLACKBURN.
PHIL GINGREY.
STEVE SCALISE.

ADDITIONAL VIEWS

When the Energy and Commerce Committee began crafting a comprehensive energy and climate change bill, I expected that it would include an Open Fuel Standard. Such a standard would require new cars manufactured or sold in the United States to be flex fuel vehicles capable of burning any combination of gasoline, ethanol, or methanol. Although this bill moves a small step in that direction, it does not go nearly far enough. I am appalled by opposition from the auto industry and its allies to any real flex fuel standard. I am especially disappointed that while all kinds of compromises were made with anti-environmental energy industries, no real compromises on flex fuel cars could be made. I consider this a missed opportunity.

Above all else, I believe that our energy policy must break our addiction to foreign oil. Our national security and our economy depend on it, as the world currently runs on a resource controlled by our enemies. We exacerbate our nation's economic woes by exporting hundreds of billions of dollars every year to purchase foreign oil. That money in turn finances people who plot ways to cause us harm.

These economic and national security problems are enabled by the simple fact that oil provides more than 96% of the fuel for our cars and trucks. For nearly every American, there is no substitute for oil.

Unfortunately, unless we act now, the problem will continue to worsen. Demand for oil continues to rise across the globe, led by the rapid industrialization of China and India, while production can not keep up.

The President announced a new national policy two weeks ago, which would increase fuel economy and reduce greenhouse gas pollution for all new cars and trucks sold in the United States. This proposal would come with an average additional cost of $1,300 per vehicle. The new CAFE standards, which cover model years 2012–2016, and ultimately require an average fuel economy standard of 35.5 mpg in 2016, are projected to save 1.8 billion barrels of oil over the life of the program. This would surpass the CAFE law passed by Congress in 2007 requiring an average fuel economy of 35 mpg in 2020.

This is a step in the right direction. However, as a method of achieving energy independence, an increase in CAFE standards is only a small step because cars still run on oil. They run on less oil, but they still run on oil.

I believe the solution is to introduce fuel choice and competition into the market. We can accomplish this by passing a law making new cars manufactured or sold in the United States flex fuel vehicles capable of burning any combination of gasoline, ethanol, or methanol. Flex fuel vehicles cost only about $90—$100 more than

the same car in a gasoline-only version. It is a simple and inexpensive modification that should be standard in cars, like seatbelts or airbags.

The largest producers of both ethanol and methanol are all in the Western Hemisphere, and the United States has by far the greatest production potential for both. Ethanol is made from agricultural products. Methanol can also be made from biomass, as well as from natural gas or coal.

Brazil has already achieved energy independence. Three decades ago, Brazil imported 80 percent of its oil supply. Today, after investments in their sugar-based ethanol industry, and an influx of flex-fuel cars that began in 2003, Brazil has achieved energy independence and is largely insulated from fluctuations in global oil prices.

The bipartisan call for implementation of flex fuel technology here in the United States is growing. President Obama announced during his campaign that he seeks to ensure that "all new vehicles are flexible fuel vehicles . . . by the end of his first term in office." The Obama-Biden New Energy for America Plan, at p. 5. Former House Speaker Newt Gingrich joined the call in an April 2009 article in Newsweek, writing "[w]e should . . . pass an open-fuel standard for 95 percent of the new cars sold in the United States, allowing the construction of flex-fuel vehicles that can run on a variety of fuels, including ethanol." Newt Gingrich, *Our Tanks Are On Full,* Newsweek (Apr. 13, 2009). Energy Secretary Steven Chu expressed his support for flex fuel vehicles to the New Democratic Coalition on May 16, 2009, and confirmed his support to me in a private conversation later that same day.

Just six months ago, the CEOs of General Motors, Chrysler, and Ford appeared before the Senate Banking Committee and the House Financial Services Committee, and each *committed* to my colleagues and to the American people that they would make 50% of their cars flex-fuel vehicles by 2012.

- General Motors Corporation—"In 2012, over 50% of GMs new vehicle sales will be flex-fuel capable." General Motors Corporation Restructuring Plan for Long-Term Viability, Submitted to Senate Banking Committee & House of Representatives Financial Services Committee, at p. 22 (Dec. 2, 2008).
- Chrysler LLC—"[Chrysler] is on target to meet our commitment of 50% of our fleet being flex fuel capable by 2012." Chrysler's Plan for Short-Term and Long-Term Viability, Submitted to the United States Senate Committee on Banking, Housing, and Urban Affairs, at p. 7 (Dec. 2, 2008).
- Ford Motor Company—"Ford has committed to doubling the production of flexible fuel vehicles by 2010 and to producing 50% of our products capable of running on E85 by 2012." Ford Motor Company Business Plan, Submitted to the Senate Banking Committee, at pp. 14, 29 (Dec. 2, 2008).

However, the Detroit Three no longer wants to honor their commitment. So, I introduced the Open Fuel Standard Act with three of my colleagues—Reps. Bob Inglis (R–SC), Steve Israel (D–NY), and Roscoe Bartlett (R–MD)—to require the automakers to honor their flex fuel promise to the American people.

Instead of supporting our legislation, the auto industry is vigorously opposing it. Instead of choosing to innovate and benefit both American consumers and the U.S. auto industry in the long-term, the auto industry would rather resist change and continue to follow its failed business plan in the short-term.

This is precisely the type of misguided thinking that led to the deterioration of the U.S. auto industry. Chrysler and General Motors have become the first large American car companies to declare bankruptcy since Studebaker in 1933. Now the American people are picking up the pieces they left behind.

Despite promises from just six months ago, the automakers now argue that they should not be required to produce flex fuel cars because there are not enough advanced fuels available to run them. The problem with this argument is that it puts the nation in a Catch–22. The automakers will not make the cars until there is sufficient alternative fuel available to run them, but industry has no incentive to produce the alternative fuel until there are sufficient numbers of cars available to use it. In essence, the automakers are presenting the illusion of choice while preventing any real choice at all.

The Open Fuel Standard would require a simple $90 or $100 modification to vehicles. That's far less the $1,300 increase in CAFE standards that the President just set forth, and could be instrumental in breaking our dependence on foreign oil.

The world is changing, and it's time for the auto industry to change with it. Now is the time for bold action and the auto industry must not be content by giving us more of the same. Simply doing the same thing will yield the same results: increasing prices and a greater reliance on OPEC.

I am disappointed that the opposition to energy independence has been so fierce. I believe it is past time to break our addiction to foreign oil. The American Clean Energy and Security Act is a good start, and I will work every step of the way to strengthen it as it moves toward becoming law.

ELIOT L. ENGEL.

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