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Senate

The Senate met at 10 a.m. and was called to order by the Honorable JOHN EDWARDS, a Senator from the State of North Carolina.

PRAYER

The Chaplain, Dr. Lloyd John Ogilvie, offered the following prayer:

Dear God, we praise You for Your love that embraces us and gives us security, Your joy that uplifts us and gives us resiliency, Your peace that floods our hearts and gives us serenity, Your Spirit that fills us and gives us strength and endurance.

Be with us, Lord, so we can maximize the hours of this week. Help us to think clearly without confusion, to speak honestly without rancor, to debate without division, and to decide courageously without contention. May our rhetoric honor You and deal with issues and not personalities. Grant the Senators Your grace to work this week as patriots who love You and count it a high privilege to serve as leaders of our beloved Nation. Amen.

PLEDGE OF ALLEGIANCE

The Honorable JOHN EDWARDS led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

APPOINTMENT OF ACTING PRESIDENT PRO TEMPORE

The PRESIDING OFFICER. The clerk will please read a communication to the Senate from the President pro tempore (Mr. BYRD).

The assistant legislative clerk read the following letter:

U.S. SENATE,
PRESIDENT PRO TEMPORE,
Washington, DC, March 5, 2002.

To the Senate:

Under the provisions of rule I, paragraph 3, of the Standing Rules of the Senate, I hereby appoint the Honorable JOHN EDWARDS, a Senator from the State of North Carolina, to perform the duties of the Chair.

ROBERT C. BYRD,
President pro tempore.

Mr. EDWARDS thereupon assumed the chair as Acting President pro tempore.

RECOGNITION OF THE ACTING MAJORITY LEADER

The ACTING PRESIDENT pro tempore. The Senator from Nevada is recognized.

SCHEDULE

Mr. REID. Mr. President, this morning the Senate is going to resume consideration of the energy reform bill. The Senate will recess from 12:30 to 2:15 p.m. for the weekly party conferences.

I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. REID. Mr. President, I ask unanimous consent the order for the quorum call be rescinded.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

RESERVATION OF LEADER TIME

The ACTING PRESIDENT pro tempore. Under the previous order, the leadership time is reserved.

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001

The ACTING PRESIDENT pro tempore. Under the previous order, the Senate will now resume consideration of S. 517, which the clerk will report.

The assistant legislative clerk read as follows:

A bill (S. 517) to authorize funding the Department of Energy to enhance its mission areas through technology transfer and partnerships for fiscal years 2002 through 2006, and for other purposes.

Pending:

Daschle/Bingaman amendment No. 2917, as modified, in the nature of a substitute.

The ACTING PRESIDENT pro tempore. The Senator from Nevada.

Mr. REID. Mr. President, I ask unanimous consent that when the energy bill is laid down this morning—which it has been—there be a period for debate only until 12:30 p.m. today, the time we recess for the party conferences; further, I ask unanimous consent that at 2:15 today the pending amendment be further modified by Senator DASCHLE or his designee with the changes that are at the desk, and that no further modifications be in order to the substitute. Finally, I ask unanimous consent that following that modification the amendment be printed.

The PRESIDING OFFICER (Mr. CARPER). Is there objection?

Without objection, it is so ordered.

The Senator from New Mexico.

Mr. BINGAMAN. Mr. President, I am pleased that the Senate is today finally proceeding to consider the Energy Policy Act of 2002. The fact that we are at this point in our deliberations is the result of a tremendous amount of work involving several committees in the Senate.

I think the committee with the largest stake in the development of this legislation is, of course, the Committee of Energy and Natural Resources, which I am privileged to chair and of which Senator MURKOWSKI is the ranking member at this point.

We have held over 50 hearings in the 106th and 107th Congresses that are related to today's bill. I express appreciation to Senator MURKOWSKI, the ranking member, who chaired many of these hearings.

I believe we have a good understanding of the issues that are forming this debate and that are at stake in this debate. Many of the elements in

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this energy bill are not going to shake out along party lines but because of genuine differences of opinion that particular Senators have.

I anticipate we will see all sorts of combinations of sponsorship on amendments on both a party and on a regional basis, before we are done.

Let me speak for a few minutes about the rationale for this energy bill. It is important to recall why we have invested so much time on the topic of energy in preparing this legislation. Why is it important for the Senate at this stage in the year 2002 to consider and pass comprehensive legislation?

I believe there are two basic answers to that question: First, energy is central to our present and our future economic prosperity. Because of its importance, improving and strengthening our national energy system can provide significant economic benefits for each American. Similarly, the vulnerabilities in our national energy system can present major threats to our national economic health. We need to anticipate those threats and deal with them, as we try to in this legislation.

A second basic reason we are considering energy legislation is there have been significant changes in energy markets since the last time Congress considered comprehensive energy legislation. The last major energy bill passed in Congress was the Energy Policy Act of 1992, 10 years ago. Since that time, as a nation we have moved further away from the command-and-control regulation of energy toward a system that relies more on market forces to set the price of energy. In the process of making that move, energy markets have become more competitive and dynamic but not without some significant bumps along the way.

Let me recount a few of those bumps of which we are all aware. First, consumers are now more vulnerable to the vagaries of the energy markets and to volatile prices for energy that cause repercussions throughout our economy. We saw that phenomenon at work in California last winter over a year ago and last spring. Also, the structures to regulate these emerging market forces, particularly with respect to trading in natural gas and electricity, are not fully developed. I think we all saw that with the collapse of Enron.

Gasoline supplies nationwide have become increasingly subject to local crises and price spikes due to the proliferation of inflexible local fuel specifications and tight capacity for refining and for pipelines.

And, finally, the events of September 11 have caused many of us to reflect on the inherent vulnerabilities of the energy transmission system we have in the country. The time may be right for rethinking how we site energy infrastructure and the balance between central and distributed generation of power in our electricity system.

Congress does need to respond to these changes and to these challenges and to these opportunities. If we do so in a balanced and comprehensive and forward-looking way, we can develop an energy policy that will lead to new economic prosperity for the country and, hopefully, for the world. But we will not get there simply by perpetuating the energy policy approaches of the past. We need new ideas and new approaches as well as greater investment in order to move to the future that we all want. That is what this bill tries to do.

The bill has three overarching goals. I have a chart that sets these out. Let me briefly go through each of them.

The first goal is to ensure a diversity of fuels and technologies for adequate and affordable supplies of energy. By this we are talking about renewable sorts of energy, as well as the more traditional sources we have depended upon. Natural gas, coal, oil, hydropower, nuclear power—all of those issues are dealt with in this legislation, and we have provisions intended to encourage adequate supply from this entire diversity of sources.

A second major goal of the legislation is to improve the efficiency and productivity of our energy use, including the reliability of our electric transmission system, the efficiency of energy use in industry, in vehicles, appliances, and buildings. We will have a great deal of discussion during the debate about the various provisions in the bill intended to encourage more efficient use of energy. We all recognize that we waste a tremendous amount of energy, and new technology can help us to use energy much more efficiently.

The third major overarching goal is to be sure that whatever we do in the energy area is done with an eye toward protecting the environment, toward not worsening the problem of climate change. I believe we have achieved that goal. Again, we will get into a serious discussion of the details as we get into the bill.

We can achieve these goals if we both accelerate the development and introduction of new technology—and we try to do that through this legislation—and if we create flexible market conditions that empower energy consumers so they can make the right choices, the choices that benefit them but also that benefit society more generally.

This combination of technology and policy innovation in pursuit of a diverse and robust national energy system can be seen in the provisions of the bill related to this first major goal—the adequate and affordable supply of energy. Let me talk about that goal and what we have in the bill related to it.

The first part of energy supply I will discuss is renewable energy. We have put a great emphasis on renewable energy in this legislation. The Senate bill contains numerous provisions to enhance the contribution of renewable forms of energy to our future energy mix. Under what I see as pretty much a business-as-usual approach, which is reflected in the House-passed bill, H.R. 4, the contribution of our energy mix from renewables would not markedly grow over the next 20 years. The result would be an energy system, particularly for the production of electricity, that would go from being 68 percent based on coal and natural gas today, in the year 2002, to being about 80 percent, based on those two fuels, by the year 2020.

That overdependence on those two fuels would leave our country extremely vulnerable to shortfalls in the delivery of either of these commodities and leave consumers exposed to the severe risk of price spikes. We need a more diverse way in which to produce electricity, not a less diverse way.

Such an overdependence does not make sense in light of the commitments to renewable energy that we are seeing in other countries, particularly in Europe. I have a chart that makes that point. This chart is ''Commitment to Renewable Generation.'' It is the percentage of increase in nonhydro renewable generation from 1990 to 1995. That was the first half of the last decade.

It shows that Spain, Germany, Denmark, the Netherlands, and France have all dramatically increased their percentage of power generated from renewable sources; the United States is barely on the chart. Even France, which is often held up as a model for its commitment to nuclear power, has outpaced the United States in development of renewable sources for electricity.

The United States needs to lead the world in renewable technologies. We have abundant domestic renewable resources. The world market for the technologies we have developed is capable of growing immensely. Renewable technology leadership would help U.S. firms achieve a strong position in winning these markets and creating new jobs domestically.

If the United States is to lead the world in renewable energy technologies, though, we need to do a better job of getting those technologies into our own economy and into our own markets.

This bill we are beginning to debate today boosts our future use of renewables in five major ways: First, the bill contains market incentives that will triple the amount of electricity produced from renewable energy over the next 20 years. This chart tries to make that point very effectively. The orange band at the bottom represents the Energy Information Agency's projection of nonhydro renewables, assuming we do not pass the legislation. We can see that from the year 2000 to the year 2020, the percentage we are generating from nonhydro renewables would not change at all, absent legislation such as we are considering today.

The green wedge represents the contribution we believe would be made if this Senate energy bill becomes law, as we hope very much it will. You can see

that we would be essentially tripling, or more than tripling the percentage of the electricity generated from renewable sources.

Let me talk about the specific incentives. One incentive in the bill is what we call the renewable portfolio standard. It creates a market for new renewable sources of energy, whether they are from wind, solar, biomass, or incremental hydroelectric generation in existing dams. This is something which many States have already done. We believe it is a good policy and one we should move to as well. One State that has moved ahead very dramatically is Texas. We commend the Senate to be aware of what has happened in Texas during the time, in fact, when our current President was Governor of that State. We believe the rest of the country should follow suit.

A second market incentive is a Federal purchase requirement for renewables. It grows to 7.5 percent for all Federal electricity purchases by the year 2010. We believe the Federal Government should lead in this area. This is an opportunity for it to do so.

The third provision is the renewable energy production incentive. There is an existing program in place to help rural electric co-ops and municipal utilities to generate renewable energy. In this bill we propose to reauthorize that and extend it to include Indian lands which contain prime renewable resources.

The next provision is that when the Senate considers the energy tax incentive amendment from the Finance Committee—and we believe Senator BAUCUS and Senator GRASSLEY will be offering that amendment at some stage during the debate—we will have an important opportunity to boost the future production of renewable energy. Existing renewable tax incentives expire January 1 of this year. This package of tax provisions that has come from the Finance Committee will reinstate the highest priority incentives for 5 years. It will expand the coverage of the production tax credit to include open-loop biomass and geothermal energy.

In addition to these incentives for renewable production of electricity, the bill greatly expands the contribution of renewable fuels such as ethanol and biodiesel. Those fuels, of course, are used primarily to power vehicles of transportation.

By the year 2005, 75 percent of the Federal Government's vehicles that can burn alternative fuels will be required to do so. That will create more market certainty for renewable fuels and for their associated infrastructure.

By 2012, 5 million gallons per year of renewable fuels will be blended into gasoline, thereby decreasing our import dependence on foreign oil.

The bill helps renewables contribute more to the energy mix also by removing existing regulatory barriers that affect renewable energy. For example, wind and solar power can be effectively tapped by small distributed generation systems. But current practices and rules in the marketplace often discriminate against distributed generation.

This bill deals with the problem by requiring electric utilities to offer customers net metering in which a customer can offset his or her electric bill by the amount of electricity that is generated and that he or she is able to sell to the local utility. This provision will facilitate the use of a wide variety of distributed generation technologies by electric customers, including renewable technologies such as solar and wind power.

This bill also requires fair transmission rules for intermittent generation. By that, I am referring to wind and solar generation in particular. Those types of generations should not be unfairly penalized because of the natural variability of these resources from day to day or hour to hour.

Finally, the bill mandates easier interconnection for distributed energy production into the interstate transmission grid. It requires States to examine ways to facilitate interconnection of distributed energy in local electric distribution systems.

A fourth way in which the bill promotes the use of renewables is by disseminating information about and facilitating access to areas with high resource potential. Particularly here, I am talking about public lands. There are many places in the Nation—particularly in the West and in the State that I represent in the Senate—where we have significant untapped renewable energy potential. The bill creates a pilot program in the Department of Interior and in the Forest Service for development of wind and solar energy projects on Federal land. The bill authorizes the study of renewable energy development potential on Indian tribal lands. The bill requires an annual publication of the assessment of available renewable resources by the Department of Energy.

A fifth and final area in which the bill helps make renewable energy a bigger part of the supply picture in the future is through enhanced research and development programs. Under this bill, these R&D programs at the Department of Energy will grow from an authorized level of $500 million in fiscal year 2003 to $733 million in fiscal 2006. Renewable energy R&D was cited by the distinguished Presidential task force in 1997 as being significantly underfunded relative to its long-term promise and the benefits that we can achieve for our economy if we did better by funding this research and development. Our bill expands the research and development activity, consistent with the recommendations of that task force.

These are all measures that I have described, which we believe will increase the contribution of renewables to our energy supply picture. They are balanced in our bill with a very strong commitment to the other more traditional energy supply sources. Let me briefly describe those.

Natural gas is one that is very much on our minds and very much a fuel of the future as well. I want to briefly describe what the bill will do to support continued development in this area. In the area of natural gas, our Nation is at a crossroads. We need to make some major decisions about our energy security. U.S. natural gas demand is expected to increase from 23 trillion cubic feet per year, which is what it is now, to 35 trillion cubic feet per year by 2020. Much of that demand will be driven by the use of natural gas for electricity generation.

This chart makes the case very strongly. The green line, of course, represents production; the red line represents consumption. We can see very clearly that consumption is outstripping production by a significant amount—even in the year 2000, which is where that line is. By the year 2020, the problem becomes much worse. As a result, we are at risk of becoming, as a Nation, dependent upon imported natural gas that is brought to us by tanker. Countries on which we would rely for such gas are, as we all know, prone to political instability. They are—as far as we can tell at this point—in the early stages of forming an OPEC-like organization for natural gas exporters. There is a cover story in the June 2001 issue of the OPEC Bulletin with a headline entitled ''Iran Hosts Inaugural Meeting of Gas-Exporting Countries Forum.'' I don't think any of us wants to put our Nation into a position of having to deal with a natural gas cartel, in addition to the cartel that controls the price of oil now.

This bill will take several steps to try to come up with a different policy for natural gas in order to avoid that possibility. It increases funding for research to develop domestic natural gas deposits in deep water areas of the Gulf of Mexico and in harder to tap geologic formations on shore. It provides research funds to explore the potential of methane hydrates trapped on the ocean floor. The bill authorizes more funds to facilitate the permitting and leasing of Federal lands for natural gas production in places where it is environmentally acceptable. It addresses a number of developing problems in natural gas provision—conflicts over coal methane, hydraulic fracturing—and tries to bring those conflicts to resolution before we encounter a real crisis.

But even after all these steps—and I believe each one is useful and important—that will not be enough to close the gap that we indicated earlier. The most significant thing the bill tries to do for future natural gas supply is to provide financial incentives to build a pipeline to bring from Alaska the vast reserves of natural gas that have been discovered and developed in the Prudhoe Bay region. I know my colleague from Alaska, Senator MURKOWSKI, has championed this for some time. This is a high priority for his

State. It is a high priority for this Nation, in my view. The existing reserves are estimated to be over 30 trillion cubic feet of gas. It is estimated that the total natural gas resource in the North Slope is enormous—on the order of 100 trillion cubic feet.

The natural gas pipeline from Alaska to the lower 48 would provide daily at least 4 billion to 6 billion cubic feet of natural gas before the end of the decade.

Once a pipeline is constructed, it would provide gas to American consumers for at least 30 years and would be a stabilizing force on natural gas prices. We all saw the volatility in natural gas prices in the year or 18 months where at one point they were up around $8 per MCF, and now it is down around $2 per MCF. Building this pipeline, we believe, will stabilize the price, and that will benefit consumers tremendously.

This project makes a great deal of sense for our Nation, but it is not happening because of this uncertainty about the investment risk of building such a major pipeline, making such an enormous investment. By any measure, the pipeline would be one of the largest construction projects ever undertaken. Construction would take approximately 8 years, from start to finish. It would require $15 billion to $20 billion. The pipeline project would create a massive number of jobs in Alaska, Canada, and in the lower 48. It would require the construction of the largest gas treatment plants in the world, and the laying of about 3,600 miles of pipe. It would require an enormous amount of steel to be produced. The number of jobs that would be created also is extremely significant—350,000 to 400,000 jobs, at a time when the steel industry is suffering harm from global overcapacity of steel production and foreign dumping. A project that would require over 500 million tons of steel means real jobs for workers in communities and States that produce steel.

Since natural gas prices vary, as I indicated before, from $2 to $8 and sometimes $10 per million cubic feet, it is hard for the free market to take this challenge on by itself. At the same time, we want to rely on the private sector to the greatest extent possible. There are two major groups of potential investors in such a pipeline, and the provisions of the bill are aimed at giving them both a shot at proposing a successful project. The provisions include an expedited process for the permits, rights of way, and certificates needed for the U.S. segment of the pipeline.

Time is money in any construction project, and in a construction project of this magnitude, uncertainty and delay will kill the project. The Government has an obligation on behalf of U.S. consumers to see that it exercises its role in a responsible way and in an expeditious way.

The Alaska Natural Gas Transportation Act of 1976 provided a framework for construction and operation of a gas pipeline along a designated route. Our legislation preserves this option. It also provides an alternative expedited procedure in the event the parties decide to pursue a different route.

Because of the enormous benefits this long-term supply of energy will have on the economy and the significant uncertainties in natural gas prices, I believe the Government has an interest in reducing the financial risks associated with the project. Accordingly, the bill does authorize in its present form loan guarantees for the project, as long as appropriate filings are made within 6 months after the bill becomes law.

I understand there are a number of refinements and modifications that may be sought by my distinguished ranking member on the Energy Committee as we move forward. He is also vitally interested in the project. For example, we are working together to come up with a tax provision that could reduce the financial uncertainty of the economics of the project going forward. Both of us are committed to encouraging Alaska North Slope producers, the interested pipeline companies, the State of Alaska, and other interested parties to begin serious negotiations on a final outline of a commercial agreement.

I believe it is important for the Senate to be proactive on this project, not simply to sit back and cross our fingers and hope that someday it occurs. If we do not act while there is a substantial private sector interest in building this pipeline, we will lose an important opportunity to bolster our energy security in natural gas. As a consequence, we might be hearing speeches 10, 20 years from now about our dependence upon foreign sources of natural gas that sound a lot like the speeches we will be hearing today and in the next few days about our dependence on foreign sources of oil.

Let me say a few words about oil. That is a central part of our energy mix. Clearly, we want to increase domestic production of oil and maintain domestic production of oil. The volume of rhetoric about drilling in the Arctic National Wildlife Refuge—both from the proponents and the opponents—would lead one to think that is the only place in the country where we can look for additional oil. In my view, that is far from true.

There are 32 million acres of the Outer Continental Shelf off the coast of Texas, Louisiana, and Mississippi that have already been leased by the Government to oil companies for exploration and production. This chart shows that. As shown on this map, the yellow part of this chart indicates those areas that have been leased and not yet developed. The red dots indicate actual producing wells.

In addition to production in the Gulf of Mexico, there are outstanding prospects for increased production from National Petroleum Reserve-Alaska, which lies to the west of the Prudhoe Bay region. Under the Clinton administration, leasing was expanded in this area. Industry has made some major finds. There is no law that needs to be passed to have additional parts of this area leased. As I understand it, the Secretary of the Interior is proceeding to prepare some of that area for leasing.

If the problem is not finding areas to lease under current law, why is there not more domestic production going on in the areas that have already been leased for exploration and production? In my view, an important reason might be the difference between our Federal and State royalty and tax policies relative to those in other countries with oil and gas resources.

Oil exploration and production is a worldwide business. Areas such as the ones on the map and in Alaska compete with other producing regions around the world. U.S. companies are making major commitments of capital derived from their earnings in the United States to develop energy resources elsewhere in the world. For example, ExxonMobil is investing $20 billion to develop natural gas in Saudi Arabia. Other U.S. companies are actively looking for oil in the Caspian region.

A key initiative in the bill to support increased domestic production is to have a top-to-bottom review of Federal and State royalty and tax policies on domestic oil and gas production, and then to have a comparison of that with similar provisions encountered by companies in other countries.

Our current U.S. policies were put in place when the United States had abundant and easily accessible reserves. We have fewer such reserves now. While technology for finding oil has continued to improve, we should consider whether our tax and our fiscal policies should change to policies that enhance the economics for exploration of oil and gas in more challenging geologic formations.

Our fiscal policies should also be changed to take into account the boom-and-bust nature of the industry and to provide incentives to maintain domestic production when prices are low. They might also include disincentives for buying and sitting on leases without developing them in a timely way. That is what we have seen off the coast in the gulf.

All of that I have described is a tall order. I do not believe Congress has the background it needs to revise these laws in a sensible way right now. We need to have a distinguished external group investigate these issues and make reports back. Setting this process in motion might prove to be useful to boost domestic production in the long run.

A second proposal to boost domestic production in the near future is to provide adequate funding for the Federal programs that actually issue new leases and permits for oil and gas production. For all the rhetoric we have

heard from the administration about the need to increase domestic production, the budget request we received for fiscal year 2002 did not ask for enough money to do this job properly.

The result of inadequate funding for land management agencies is delay and frustration on the part of oil and gas producers. This bill provides increased budget levels for these functions. The Federal Government can then take the necessary steps to make oil and gas leasing faster and more predictable where it is already permitted and where it is able to be achieved in an environmentally acceptable way.

The bill also contains increased R&D funding to support oil and gas production by smaller companies and independent producers. These are the entities that account for the majority of onshore U.S. production of oil. They do not have the resources to do their own exploration and production research and development. Improving their ability to use new technology to find and produce oil and gas is a good policy for increased domestic production.

Here, too, there is room for improvement on the part of the administration. The most recent budget request we have seen from them has slashed funding in the Department of Energy for these very programs. My ranking member and I oppose these cuts. It is important for the Senate to take a position in favor of increased authorization for these programs, not cutting funding for these programs, and this bill will do that.

Let me say a few words about coal. Another very important contributor to our current energy supply picture is coal. This chart makes the case very dramatically. We can see this is a chart that depicts where the electricity generation comes from by fuel. We can see that the top line is coal. So 59 percent of the electricity generated today in this country is produced from coal.

We have a tremendous coal resource. We have been called by some the Saudi Arabia of coal by some. But coal in our energy future needs to be clean, and it needs to be emission free. Coal-based generation produces more greenhouse gas emissions per Btu of energy output than does natural-gas-fired generation.

Other pollutants from coal-fired plants have been a source of regional tensions between the States where coal-fired plants are based and States downwind from those particular States.

Coal is too important a resource for us to write off. Technology holds promise for dramatically lowering, even reducing to zero, the emissions from coal-based plants.

This bill takes a very forward-looking approach to the issue. It authorizes $200 million per year for research and development and demonstration programs, based on coal gasification, on carbon sequestration, and related ultraclean technologies for burning coal. This proposal was a result of a strong bipartisan push in the Energy Committee by Senator BAYH and Senator THOMAS, who was present a few minutes ago and I am sure will want to speak on this issue.

There is one more example of the crucial role research and development is going to have to play in shaping the energy future we want. Let me say a few words about nuclear power because clearly research and development is also the key to the future of nuclear power in the country.

Nuclear reactors emit no greenhouse gases. So on that basis one would think they were an option we should be looking to for the future. But nuclear plants have other characteristics that are not as attractive. They have very high upfront capital costs compared to other generating options. That puts them at a disadvantage in the marketplace.

The nuclear waste problem is still not solved. Nuclear safety is a continuing concern for the public. Our cadre of nuclear scientists and engineers is growing older and is dwindling in size, and we are not seeing a large supply of students being trained to help us deal with nuclear issues in the future. This bill takes on these problems by focusing on research and development on new nuclear plant designs that might address these problems and on a program to strengthen university departments of nuclear science and technology.

The bill also contains a partial reauthorization of the basic nuclear liability statute, the Price-Anderson Act. The part that is in the bill deals with the liability of the Department of Energy nuclear contractors, including our national laboratories that are a significant source of our national nuclear expertise. The other main part of the Price-Anderson Act dealing with the commercial nuclear power industry is likely to feature prominently in the debate we have on this bill, and I believe we should go ahead with full authorization of that bill and will support efforts to do that.

Hydropower is another source of energy supply that this bill tries to address in electricity generation. Many hydropower facilities are reaching the age at which their original licenses under the Federal Power Act are about to expire. The process of relicensing these facilities needs to be protective of the environment, predictable for licensees, and efficient in the way it is administered.

We have been working for months with various Senators to try to come up with compromise, consensus language that would accomplish all of these objectives. I hope we can do so, and I hope we can include legislation in the final version of this bill by the time it passes the Senate. We have legislative language in the bill right now, but there are still concerns about it, and I am aware of those concerns.

Indian energy, a final way this bill focuses on increasing the supply of domestic energy, is through a series of provisions facilitating the development of energy resources on Indian lands. We have a significant share of our untapped domestic energy resources located on Indian lands. I will not go into great detail about those provisions but simply say it is very much in our national interest that we facilitate development of those resources. It can be a benefit to the Indian tribes that have those lands. It can also be a great benefit to our Nation.

Our second big goal in the bill, on that list of three goals I mentioned, is increased efficiency in the use of energy. So far, I have described ways in which the bill achieves the goal of increasing supplies of energy, but let me talk a little bit about this efficiency issue.

As I have mentioned consistently through this past year, we cannot have a sound energy policy based only on production or based only on conservation; we need a combination of the two. The energy policy needs to make a major push toward increased efficiency.

The first major way in which we can use energy supplies more effectively and efficiently is by having an electricity transmission system that is ready for the challenges of the 21st century. Electricity is essential to our way of life. It is how we light our offices. It is how we light our homes.

Our electric system largely operates on a design that is nearly a century old. The vulnerabilities of the current system by which we regulate electricity were illustrated by the electricity problems faced by California and the West last year and the year before. Those problems which occurred on the west coast should be a wake-up call to the fact that we need to deal with these electricity markets in a more proactive way.

In addition to these problems, there are important opportunities during the next few years. Literally billions of dollars of investment will be planned and committed to electricity generation and transmission. Those investments will have 30- to 50-year lifespans, so it is important we get it right. Market institutions need to be developed that ensure reliable and affordable supplies of electricity, and policies need to be adopted that favor future investments in new technologies and give consumers real choices over the energy they use. I believe the provisions contained in this bill do that.

First, the bill sorts out the roles and responsibilities between the Federal Energy Regulatory Commission and the States. We give FERC clearer direction as to what its role is in ensuring the adequacy and reliability of a transmission system. FERC is given, in fact, responsibility for making mandatory adherence to rules to promote the reliability of this interstate transmission system in this legislation. The bill also gives FERC tools to make sure competitive markets work well to provide customers with affordable electricity by strengthening its authority

over mergers, clarifying its authority over market-based rates, and increasing the transparency in energy market information.

One of the lessons we all learned as we watched the collapse of Enron was that we need more transparency. We need more openness in these markets so we can see on a real-time basis what is being bought and what is being sold and at what price.

Finally, the bill begins to address the tough issue of siting new electric transmission lines. This is obviously a contentious and controversial issue. I believe the Federal Government can play a role, through FERC, in assisting in decisionmaking at the regional level, and we try to put in place a framework for the Federal Government to assist States in more effective regional coordination on all of these energy issues, including transmission siting.

On energy efficiency, this modernized electricity system is a major way to move ahead and position the country for the future. A second is to increase the efficiency of the various uses of energy across the board in vehicles, in industry, in appliances, in buildings. I will talk a minute for each of those.

The bill contains provisions that directly bear on fuel efficiency of vehicles. We will have a great deal of debate on that. One mandates higher fuel efficiency in the vehicles that are purchased by Federal agencies for civilian use. We also provide a framework for the Department of Energy to assist States in expanding voluntary incentive programs. The major initiative in this area is an increase in the corporate average fuel efficiency, or economy, standards. The House-passed bill had a very weak provision on this subject. We attempt to do better.

The chart we have shows the problem we have with oil being imported into this country. The top line is total oil demand. Something in the range of 52 to 54 percent of our oil today is imported. Our total demand for oil is represented by that top line, and it is continuing to rise as we go from the year 2000 to the year 2020.

All projections are it will rise. The reason it is rising, looking at the next line down: The transportation demand line is also rising. Unless we can do something to flatten out that transportation demand line by using gasoline more efficiently, we will not do anything very significant to reduce our dependence on foreign oil.

We try to do that in this bill. As I indicated, there will be a great deal of debate about whether or not we are doing what we should do there. I believe strongly that we should strengthen or increase corporate average fuel economy standards. We are trying to do that.

This chart also reflects our projection as to what would be achieved by opening the Arctic National Wildlife Refuge to drilling. The small red line on the bottom of the chart shows that there would be increased production. The green line on the bottom is domestic oil production. It would go up if there were an opening of ANWR to drilling and development, but in our view it does not constitute a substantial solution to the problems we face.

These issues, both the CAFE standards and the ANWR issue, are issues about which we will have a great deal of debate.

We also have provisions in the bill to improve the energy efficiency of Federal buildings and schools and public housing. We have provisions to reduce energy use in manufacturing and other industries, provisions to increase efficiency for numerous consumer and commercial products, and we reauthorize the important Federal grant programs that help low-income families pay their energy bills and reduce their energy costs. That is something which I think all Senators will support.

We could go into great detail about each of these, but in the interest of time I will not do so at this point. Let me just point out that there will be an opportunity to debate these issues as we get into the amendments. The Senate bill addresses each of these areas. We have tried to work hard with Senators who have an interest in them to come up with consensus proposals.

Let me also talk about energy efficiency research and development. The research and development emphasis that is in this bill applies to increased supply because much of our ability to increase supply depends upon increased research and development activity, but also the increased research and development applies to improved efficiency in our use of energy. We have a major push for that in the bill. We propose a funding increase—from $810 million in fiscal year 2003 to over $1 billion in 2006—that will support efficiency progress across the spectrum. I believe this is one of those areas where we have a tremendous amount that can be accomplished. I believe very strongly the provisions in this bill will move us in that direction.

One particularly exciting R&D activity being funded as part of this bill is a program called the Next Generation Lighting Initiative. In contrast to a grant program with the same name in the House bill, the Senate bill establishes a Government-industry partnership to develop the technology for semiconductor-based lighting that would be ultraefficient. The model for this partnership is the SEMATECH consortium, established several years ago, which boosted our national competitiveness in semiconductor manufacturing in the 1980s and 1990s.

Current lighting technology wastes an enormous amount of energy going into the bulb in the form of heat. That is one reason it feels so hot under kleig lights. Light-emitting diodes, which have been developed in recent years, create light with very little energy loss. The only problem is that we do not know how to commercially manufacture, at low cost, reliable light-emitting diodes producing white light. There are a lot of good ideas for how to do that. This Next Generation Lighting Initiative will try to develop long-lasting, cost-competitive white lights from diodes by the year 2011, and develop those in a way they can be manufactured at a low cost. We are continuing to use the light bulb that Thomas Edison developed. After 100 years, I think it is time we move to a new generation of technology. This provision in our bill tries to help us do that.

All the major elements of the U.S. lighting industry are supporting this effort in the Senate energy bill. The rationale for their interest and for a Government-industry partnership is clear: Lighting represents 20 percent to 30 percent of all U.S. electricity use. The best current systems are about 25 percent efficient. That is, for every kilowatt of power going in, you get about 25 percent of it back in light. We need to change that. The technology is here to do that. We need to find a way to manufacture it in a low-cost way.

These energy efficiency assistance programs are the Low Income Home Energy Assistance Program, the LIHEAP program, with which we are all familiar here in the Senate, and also the Weatherization Assistance Program. We propose to authorize those at a higher level and to make those more useful programs for all parts of the country. As I said before, those are provisions which should get the support of all Senators. I certainly hope that is the case.

The third and final goal of the bill is reducing the adverse effects of energy on the environment. Energy production and use are associated with a host of consequences for the environment. We need to strike the right balance among energy and the environment and the economy in order to deal with the longstanding concern we have in the Senate and in our society in this regard. This bill addresses these issues in a number of ways.

There are provisions in the bill dealing with the legacy of past problems posed by energy production and use for the environment. These include programs to clean up orphaned and abandoned oil and gas wells and programs to develop research to remediate groundwater supplies damaged by past energy activities. Another way in which the bill addresses the connection is by developing and adopting new energy technologies with better environmental performance.

Probably the most important future problem on which we need to focus as part of this bill is the problem of increased concentrations of greenhouse gases in the atmosphere and the impact they are believed to be having on the climate. We have various provisions in this bill that ensure we integrate climate change strategy with our energy policy. We will have a chance later in the debate to go into those in great detail. Some of those provisions

are drawn from a bipartisan climate change bill sponsored by Senator BYRD and Senator STEVENS. That had the unanimous support of the Committee on Governmental Affairs when it was reported out of that committee.

We need a strategic plan for climate change that can get buy-in from both the Congress and the administration. Just before our Presidents Day recess, President Bush announced a new climate change policy framework based on reducing the greenhouse gas emission intensity of the U.S. economy. Emission intensity is defined as the output of greenhouse gases divided by the gross domestic product. The President announced that his plan would decrease emission intensity by 18 percent by the year 2012. That sounds impressive until you look at this chart we have here entitled ''Greenhouse Gas Emission Intensity; recent trends as compared to the Bush proposal.''

The black line which leads up to about halfway through the chart, up to 2002, shows how greenhouse gas emission intensity has been declining in the 1990s. Greenhouse gas intensity has been declining because the part of the economy that is growing fastest is the service sector, which does not produce greenhouse gases in any significant amount.

The red line, which is on this chart—you can see it very clearly there—shows what the President claims his proposal would do.

The green line, which is harder to see because it is covered up by the red line, shows what would happen if current trends were simply to continue. The point is, it is hard to see the green line on the chart because it is almost completely covered up by the red line. Simply put, the President's proposal would not change the trend in greenhouse gas intensity over what would likely happen at any rate based on current trends. It is perhaps a good thing. The President has indicated an interest in climate change policy—a policy that does not improve over what would likely happen anyway, and is certainly not an adequate strategic plan in my view. We will have an opportunity to debate that issue as part of this bill as well.

I will not go into detail about the various provisions in the Byrd-Stevens proposal except to say that I believe they set up a good framework for addressing this issue in future years.

Strengthening our Nation's energy infrastructure security is another key issue as a result of the terrorist attacks we have suffered.

This is something that I am sure is of great concern to all Senators. We have various provisions in the bill that attempt to do that. One set of relevant provisions has already been described—giving FERC authority to promulgate rules to ensure the reliability of States' electric grids.

Another set of provisions in the bill focuses on the Nation's Strategic Petroleum Reserve. This is a major insurance policy against cutoffs of oil from the Middle East.

We have a provision to provide for permanent authorization of that and fulfilling of the Strategic Petroleum Reserve.

Let me say a few final words about R&D, technology transfer, and education as crosscutting themes in this bill.

I have described the many provisions of this bill in terms of the three overarching themes of increasing energy supply, increasing the efficiency and productivity of energy use, and coordinating energy policy with other societal goals. Throughout these discussions, I have described R&D programs that play a major role in achieving these goals. An aggressive and forward-looking R&D program on energy is the pervasive cross-cutting theme of this bill. I believe there is a broad consensus in the Senate that new science and new technology are at the core of any solution to our national energy challenges. Yet, despite the importance of energy R&D, our recent commitment to it leaves a lot to be desired. Federal energy technology R&D today is equivalent, in constant dollars, to what it was in 1966. Yet, our economy is 3 times larger today than it was in 1966. When you look at trends in Federal expenditures for R&D over the last 10 years, some startling facts stand out.

First, while Federal R&D expenditures for health science at the NIH—the blue line—and basic science at the National Science Foundation—the black line—have grown during the 1990s, R&D support for energy—the red line—has stagnated or even fallen, in real timers. Today, in real terms, we are still below where we were in 1990 in terms of support for energy science and technology. For fiscal year 2002 and fiscal year 2003, the Bush administration has proposed nothing to reverse these trends. Both budget requests proposed cuts in R&D for energy.

It is hard to see how you build a 21st century energy system on stagnant, 1960's-level-of-effort R&D budgets. This bill builds these budgets in a rational way to levels that, by 2006, will give us a robust energy R&D effort to support the goals of this bill.

As we proceed with this debate, there will be areas in which we reach bipartisan agreement and areas in which we will differ substantially. In the latter areas, we will have to make a choice between alternatives.

With respect to the areas of bipartisan agreement, I am pleased with the support that we have received from the administration for our position that electricity is an integral part of any energy bill. They have worked hard on assisting with electricity as a part of this energy bill. We may differ on a number of the details, but the President and the Department of Energy have made clear their interest in working on a bipartisan basis to get electricity provisions that increase renewable sources of electricity, protect consumers, and promote a reliable and effective transmission grid.

The Administration has also supported our initiative to promote the construction of the Arctic Natural Gas Pipeline.

There are also some important differences between where we are starting in this bill and the administration's positions. Perhaps the most reported-upon difference is on drilling in the Arctic Refuge. We will probably not get to that debate immediately, but when we do, the differences will be apparent.

We support a stronger standard for central air conditioning units, recognizing that their energy use on hot summer days are a key contributor to the threat of brownouts and blackouts. In my view, the administration's position to roll back the standards it found when it took office was a mistake, based on incorrect and outdated data on costs. In hearings in the Energy Committee, this point was explored in detail.

We are advocating a much stronger position on CAFE standards in this bill than the administration is willing to step up to. We believe that there is no conflict between safety, employment, and higher fuel efficiency in cars. They myths that higher standards will lead to less safe cars, or that we will lose domestic employment if we make our cars and trucks more fuel efficient are just that—myths. The National Academy of Sciences pretty much exploded them in the report that Congress commissioned it to write on the subject.

Finally, now that we have seen the President's proposal on climate change, we must recognize some real differences between our approach and the President's plan, which is simply business as usual.

I hope there are some concrete steps we can take to actually reduce the amount of carbon we are putting into the atmosphere. It is not enough to just reduce it relative to our GNP. We need to reduce it in absolute terms at some stage in the foreseeable future.

I hope we can have a very good debate. I hope we can come together—both Democrat and Republican Members of the Senate, as well as the administration—and have a thoughtful analysis of our current energy challenges and demonstrate a willingness to take some bold policy steps to address those challenges. The country needs no less. Our national security, our future economic prosperity, and the jobs of millions of Americans are at stake as we try to shape an energy policy for these next several decades.

I look forward to the debate. I know my colleague from Alaska, the ranking member on the committee, is here to give his opening statement.

I yield the floor.

The PRESIDING OFFICER. The Senator from Alaska is recognized.

Mr. MURKOWSKI. Mr. President, under the order, we are likely to go out at 12:30 for the luncheon recess.

The PRESIDING OFFICER. The Senator is correct.

Mr. MURKOWSKI. Senator BINGAMAN has used how much time?

The PRESIDING OFFICER. Approximately 55 minutes.

Mr. MURKOWSKI. So I would have perhaps 30 minutes left. I propose that I be allowed to proceed when we come back. I have probably a little less than 55 minutes. I am somewhat reluctant to start and be interrupted. I would propose to the leader that we might use the remaining time for Senators who want to speak in morning business, and I be allowed to introduce my opening statement at 2 o'clock when we come back. We will probably have statements and take amendments as they come up.

Mr. REID. Mr. President, if I could respond to my friend from Alaska, what the Senator from Alaska proposes is that we go into a period of morning business until 12:30, and at 2:15, when we return, the Senator from Alaska be recognized for up to 1 hour; at 3:15, the Senator from South Dakota, the majority leader, or his designee would offer a modification. The Senator has suggested that he proceed at 2:15.

For the convenience of everyone, I propose that the majority leader, or his designee, at 2:15 lay down the modification, which would take a matter of a few minutes at the most, and then the Senator from Alaska would have 1 hour to present his opening statement.

Mr. MURKOWSKI. If I may respond, I certainly have no objection to the procedure of the majority leader laying down his modification. I don't want to be bound by a time agreement. We didn't discuss a time agreement on opening statements. It is not my intention to speak at length, but I would not like to be limited necessarily.

Mr. REID. I think that is entirely appropriate. I would like to hear the Senator speak longer than an hour.

Mr. MURKOWSKI. I am sure the Senator would.

ORDER OF PROCEDURE

Mr. REID. Mr. President, I ask unanimous consent that the period from now until 12:30 be deemed as morning business; at 2:15 Senator DASCHLE, or his designee, be recognized to offer the modification; and, the Senator from Alaska, the ranking member on the committee, be recognized to give his opening statement.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

Mr. REID. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. CARPER. Mr. President, I ask unanimous consent the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. BINGAMAN). Without objection, it is so ordered.

ENERGY POLICY

Mr. CARPER. Mr. President, I simply begin by thanking you, first, for your statement in the Chamber today, but also, more importantly, for the leadership that you, Senator MURKOWSKI, and others have demonstrated to bring us to this point today. I cannot speak for the rest of my colleagues, but I am delighted we are in this Chamber and have begun the debate. It has been long delayed, but it is a most important debate on whether or not we are going to have an energy policy for this country of ours.

At the end of the Vietnam war, as a young naval flight officer, I moved from California to Delaware to enroll in the University of Delaware Business School. One of my earliest memories of coming to Delaware is sitting in line, waiting to buy gas for my car. We were in the middle of an oil embargo, and at that time you could only buy gas every other day. We did not have an energy policy in the mid 1970s. We do not have one today.

Twenty-eight years ago, some 30 percent of the oil we used in our country was imported. We had a trade balance that was pretty much even. There was not much of a deficit. Greenhouses at the time were something in which we grew plants. We did not worry about greenhouse gases and whether or not we would have a hole in the ozone layer of our atmosphere. That was 28 years ago. Today, almost 60 percent of the oil we consume comes from other places around the globe. A lot of it we buy from people who don't like us very much and, I am convinced, use some of the money we send them to try, in some cases, to hurt us or our interests.

Our trade deficit has ballooned to $300 billion, and not all of it but a good chunk of it is attributable to the oil we import. Today, when people talk about greenhouses, we still grow plants in them, but we also worry about greenhouse gases and what is going on with the hole in the ozone layer, what is going on with a rising global temperature, and what is going to happen to our sea level in this world over the next 100 years if we do nothing about it.

The question we are going to be answering in the next couple weeks is, What kind of energy policy should we have in this Nation?

Like most of my colleagues, I would argue that the answer to that question has two parts. One part says we create more energy. And while we work to do that, in a variety of ways, the second part says we need to conserve more energy.

Let me talk a little bit about both of those issues: First, the creation of more energy and, second, the conservation of energy.

I live in a State where, I am told, we actually grow more soybeans in Sussex County, DE, than any other county in the country. We also have more chickens in Sussex County than any other county in the country, including those in Arkansas. We can look to those soybeans for a source of energy. Frankly, we can look to those chickens as a source of energy, as well, as we go along.

We raise soybeans in Delaware to feed chickens. We feed them the hull of the soybean. The oil that comes out of the soybean we do all kinds of things with in this country. We create soy foods, soy milk. We also can create something called soy diesel fuel: 20 percent soy, the rest is diesel. We can burn it in our diesel-consuming machines, and it works just fine. It is energy efficient. It works well in the machines, and the emissions are no worse, for the most part, than any regular diesel fuel. In some cases, they are actually better.

We have too much soybean in this country; we have a glut of that commodity. It is a good alternative to use the soybeans that are in excess on our farms to help lessen our reliance on foreign oil.

We have figured out how we can burn animal waste to derive the Btu value, including chicken litter, in ways that are environmentally friendly.

In my State, we have the biggest independent producer of solar energy panels in the country. We are proud of the work they do at AstroPower. And it is not just at AstroPower; there are places all over this country that are relying more and more on solar energy in developing evermore efficient ways to create that solar energy.

Windmill farms are becoming more common in this country. Hopefully, as we continue to perfect that technology, they will become even more efficient.

Others have spoken, and will in the weeks ahead, about geothermal energy, how we can take hot air in the summer and run it 300 feet underground to cool it off, and then use it to cool our homes in the summer; and we can take cold air in the winter, run it 300 feet underground to warm it up, and then use it to warm our homes and businesses in the winter.

Those are just some of the ideas of renewable energy that we can use, that we can rely on, that we are more relying on, and need to do more so in the future.

We also have, as Senator BINGAMAN said earlier, a lot of coal in this country. I think he said we are the ''Saudi Arabia of coal.'' I am privileged to represent the State of Delaware in the Senate. I was born in West Virginia. I know full well they have a lot of coal there and other places around our Nation. We ought to find ways to burn that coal without doing more harm to our environment. We can do that. Clean coal technology is very promising. We need to continue those efforts.

There has been some discussion already today about natural gas. We are starting to rely more on natural gas from other places around the world. We have a lot of it in our country. But consumption is going right through the roof because we have such good environmental consequences compared to other fossil fuels we use. There are

huge finds of natural gas in the northern parts of Alaska. We ought to bring it down here and use it.

Similarly, in the Gulf of Mexico there are huge deposits of oil and natural gas that are available to us to be extracted safely and in an environmentally sound way. Those are sources on which we need to rely.

A year or so ago, I reported back to my colleagues about a trip in which I led a bunch of Boy Scouts from Delaware on down to Norfolk Naval Station. The trip was on a weekend a year ago last January. We visited a lot of ships and submarines. It was a lot of fun for the adults and for the young Scouts.

One of the ships we visited was the *Teddy Roosevelt*, a nuclear-powered carrier. It is about 1,000 feet long. It is about 25 stories high. It carries a crew of roughly 5,000 men and women. Underway, it has about 70 aircraft or so that it takes with it. It needs to refuel about once every 25 years—once every 25 years.

For us to walk away from nuclear power as if it is from a day gone by I think is a mistake. I fully acknowledge the security concerns that revolve around nuclear power and terrorism. I acknowledge the legitimate concerns about disposal. But having said that, the potential is real, and we have only begun to realize it. I urge us not to walk away from that technology while we work to solve the issues regarding security, the environment, and disposal.

Another very promising area for creating new energy is fuel cells.

The idea that we can take hydrogen, which we have in abundance, and derive energy from that hydrogen and end up with a waste product that is H_2O—what a bonanza, what potential.

This is 2002. By 2012, we will have cars, trucks and vans traveling the highways of America powered by fuel cells. We will have homes, buildings, and factories that are going to be powered by fuel cells.

In Government, if we are smart enough to, one, invest in the research and development; two, help commercialize those new technologies, including fuel cells; and, three, in addition to doing those things, if we will provide tax incentives to encourage producers to produce those more fuel and energy efficient, environmentally efficient, and friendly sources of energy, and to encourage consumers to buy them, we will do this country and this planet a real favor.

Let me talk about a couple of efforts on the conservation side. We will have a substantial debate on CAFE standards in the next 2 weeks. That deals with the efficiency of the cars, trucks, and vans we drive.

I would suggest we consider and keep in mind these principles as we go forward. As we seek to reduce the amount of oil our cars, trucks, and vans consume, one, let's work to find meaningful reductions in oil consumption by motor vehicles.

Two, let's set measurable objectives so we actually know we are making progress and we can measure our progress against the objectives.

Three, let's provide a reasonable time line for the auto industry to make the changes it needs to make to bring more energy-efficient vehicles to the market.

Four, let's make sure we don't get rid of, as collateral damage, the domestic auto industry; but when we finish our work in 10, 15 years from now that we still have a strong and vibrant, even more strong domestic auto industry.

Fifth, we ought to set some long-range goals for car makers and truck makers with respect to oil consumption. We should defer to other entities, to NHTSA, within the Department of Transportation, to actually do the intermediate setting of goals for fuel efficiency.

Six, we need to think outside the box with respect to the auto industry so that they have some additional tools to work with to help them get to the target we are going to set.

One of those I have already mentioned is fuel cells. Fuel cells is where we are going to be in 10 or 15 years. Today, we are, for the most part, the internal combustion engine. The bridge to the future with cars, trucks, and vans is with hybrids. We are starting to see the introduction of gas hybrid vehicles that are getting 50, 60 miles per gallon. I continue to be struck by a presentation I received from Daimler-Chrysler where they shared with us a model vehicle they could produce which gets 75 miles per gallon. It is a four-door passenger vehicle, the SX–3. They cannot sell them in this country. It is a diesel hybrid vehicle. They can sell them in Japan and Europe.

We need to work with the auto industry to help them achieve the next tier of standards, tier 2 standards, for emissions that include nitrogen oxide. We need to be mindful that diesel-powered vehicles, which now account for about 40 percent of the sales in Europe, can do a lot to help us reduce our reliance on foreign oil and reduce carbon dioxide emissions which lead to greenhouse gasses and global warming.

The last topic I want to address is what the Government can do: One, we can invest our money, our taxpayer money in research and development in ways that will help us to create more energy and to conserve more energy.

We can use the buying power of the Federal Government on both the civilian and military side to help commercialize new technologies. If companies, particularly in America, are building more fuel-efficient vehicles, whether they are gas hybrids, diesel hybrids, and eventually fuel cells, we should use our buying power to commercialize those technologies in the marketplace.

Lastly, if manufacturers are going to build hybrid vehicles, fuel-cell-powered vehicles, that will enormously reduce our reliance on foreign oil and that are good for the environment, we should provide a tax incentive for producers to produce them and for us, as consumers, to buy them.

Two general points with respect to conservation: Air conditioners, we have the technology to build air conditioners that will cut our reliance on electricity or reduce our consumption of electricity by 30 percent. We can do that. We have the technology. We need to commercialize the technology. We ought to build them, and we as consumers ought to buy them.

On transmission lines, we have seen presented in our Energy Committee transmission lines which are able to transmit electricity across the country and reduce the loss of energy through those transmission lines by some 30, 35 percent below what is currently occurring. That is another thing we can do and ought to do in order to conserve energy.

Let me close with this: I am troubled, having felt for 28 years that we need a comprehensive energy policy, by the voices I hear inside this body, and outside, who say we are not going to agree on an energy policy.

In the wake of September 11, we must develop the political will to hammer out an agreement on energy policy that conserves more energy and produces more energy at a time when almost 60 percent of our oil comes from overseas, comes from some of the people who don't like us and who use the resources we give them to threaten us. How can we not pass an energy policy bill? We are smarter than that; we are better than that. The American people deserve better than that as well.

I yield the floor.

The PRESIDING OFFICER (Mrs. CLINTON). The Senator from Texas.

Mrs. HUTCHISON. Madam President, I am so pleased that finally we are going to address an energy policy for our country. It has been a long time coming.

I thought, even since before I came to the Senate, we were not looking forward enough to address the future energy needs of our country. September 11, 2001, turned an energy policy from a possible economic, far-reaching element that we should put into our policy think-tanks to a national security issue.

The fact is, if we do not have energy supplies within our own country, under the control of our own country, we are not going to be a country that is economically self-sufficient, strong, and stable. And we most certainly cannot prosecute this war on terrorism if we do not have a strong and stable economy.

The fact is, today we import 60 percent of our oil for national consumption. If we had a sudden closing of Middle East oil to our country, it would have a profound impact on the stability of our economy. What we cannot take, as we are looking at a fragile recovery in our economy, is another hit.

We have the chance to do what is right, to plan for the future, and to stabilize our self-sufficiency. What we need is a balanced energy policy.

We need a policy that addresses conservation, that says to Americans: You can do certain things and cut back on your consumption, and that will save millions of barrels of oil that we would need to import or millions of feet of natural gas or electricity or whatever.

The bottom line is that we can have incentives for conservation. We need to look at alternative sources of renewable energy. That is certainly something we are just beginning to scratch the surface on, to see what the capabilities are.

Nuclear power is certainly a clean energy, and we know we can build safe nuclear powerplants. We have seen other countries that are practically totally dependent upon nuclear power, and it is a safe and environmentally sound way to produce energy. We stopped building nuclear powerplants, and, frankly, I think we need to look at ways we can safely build nuclear powerplants today. That would provide a huge source of energy in our country, and it would certainly be a way to become more independent.

Last but not least, we need to have more exploration and drilling in our own country. We need to have an energy supply that we can provide at home. So if we had a balanced approach, we would be able to become much closer to energy self-sufficiency. That is the kind of bill we need. It is not the kind of bill that will be laid before us.

The bill that will be laid before us does practically nothing for the production side and relies totally on the other two prongs—conservation and renewable energy sources—and it is not a balanced approach. We must go full force on all fronts.

There are two things that will be very valuable. One is in the bill, and that is to encourage production by small businesspeople with marginal well tax credits. They could actually cost nothing because the price of energy is so high right now. If the price falls below break-even, which is $15 to $18 a barrel, we need a floor for the small guys, the 15-barrel-a-day well businesses—and to put that into perspective, 15 barrels a day is barely break-even in the best of times. A normal, good well would produce 1,000 barrels or 10,000 barrels a day. We are talking about 15 barrels a day. A well like that, when the price goes to $11 per barrel, has to shut in. It cannot stay in business. It is too small. The margins are too low, and you have to have a break-even point, which is about $15 to $18 a barrel.

So if you have a tax credit for that small driller of 15 barrels a day or less, if the price goes below $15 per barrel, you can keep those people in business; whereas, they would shut in the wells, as thousands did when the price of oil, 2 years ago, sank to $11 a barrel. In fact, those little bitty wells have a great capacity. There are 500,000 of those around the country. Many have not been reopened because of the fluctuation and the view that if prices went down, they would have to shut in again, and they don't want to go to the expense of reopening. If we had those 500,000 wells working and producing 10 to 15 barrels a day, that would equal 20 percent of America's needs—the amount we import from Saudi Arabia every day.

Think of the stability for that small businessperson just with a tax credit, if the price falls below break-even, which costs the Treasury nothing but keeps small business jobs going and creates stability for our country for 20 percent of our oil needs. That provision has been introduced and it will be part of our debate.

We need to keep that provision, and I don't think we will lose it. But it is a significant part of our energy bill that is very important that we pass, hopefully, within the next few weeks.

The second part is opening up ANWR, the Arctic National Wildlife Refuge. There has been a lot said about the environmental concerns about drilling in ANWR, but I think people who make this argument do not understand the new technology for drilling. For example, the wildlife refuge is an area the size of South Carolina. It is, obviously, a vast area. The amount we would be limited to drilling in from the House bill that has come to the Senate, and which everybody agrees is reasonable, is approximately 2,000 acres of land. That is an area the size of Dulles Airport. So the area is the size of South Carolina, and the area of drilling is limited to an area the size of Dulles Airport. That is what we are talking about. It would have all of the environmental restrictions to make sure that land is preserved and not damaged in any way for the wildlife there.

In fact, the part where you would really do most of the drilling is not an area that has trees or any kind of vegetation. It is frozen a good part of the year, and it is basically barren flat land. Other parts of the wildlife refuge do have beautiful trees and wildlife, and it would not be encroached on at all. So we are talking about, I think, a very environmentally safe operation—to go in and drill. If we don't, let's look at what happens to the environment.

If we decide not to drill in ANWR, the drilling will be done in Russia, right across the channel from Alaska. Will Russia put the same environmental concerns in place that we have if we do it on American soil? I don't know, but I doubt that the Russian environmental requirements would be as much as we would put on it if it were in Alaska. If Russia does this, using the same resources under the ground that would be what we would drill from Alaska, then you will have foreign ships coming in and out right through the Alaska channel. Oil spills that could happen, if we were not in control of the requirements for those ships, could be very damaging.

So I think, environmentally, it would be much safer to drill on our shores with our environmental requirements, with our requirements on the ship that would come in and take the oil out, than to have it done 15 miles away in Russia, where we would have no control. So I think the argument is better made to do it where we can control it, where we would have the standards that would make sure it does not encroach on any kind of wildlife or wilderness area. That is why Alaskans are for drilling in ANWR. That is why the State that would be most affected very much wants this to happen.

I think it will be a huge help for our national defense if we go forward and drill in ANWR. Today, we import a million barrels a day from Iraq. Oddly enough, in September of 2001 we were importing a million barrels a day from Iraq.

Do we really want to depend on the good will of Iraq for almost 20 percent of the needs of our country—for jobs, for companies that need energy to continue to operate, for the gasoline we buy at the pump? Do we really want to depend on Iraq for 20 percent of our needs?

I do not think that is a prudent position. We can create the same amount of oil from our shores in an environmentally safe way as we import from Iraq every day.

We are going to have to make some sacrifices in our country to become energy self-sufficient. It is part of our effort in the war on terrorism. It is part of what we should step up to the plate and do to make sure our country is secure; that we do not depend on the good will of Iraq, Saudi Arabia, Venezuela, or anyone else who produces oil that is exported to America. We are friends with Saudi Arabia. We are friends with Venezuela. But do we really want to be dependent on any country? Do we really want to be dependent on a country that has clearly exhibited hostilities to the United States as Iraq certainly has?

I hope not. I hope the Senate will pass a bill that will have the goal of creating energy self-sufficiency in our country. Only then will we be truly able to control our own economy. Only then will we not have to go begging with a tin cup to other countries to ask them not to cut back on their supply to our country.

This is not a nation that does well at begging with a tin cup. This is a nation that has taken the lead in the war on terrorism; that is standing behind our military and our President in the prosecution of this war; that is standing behind those men and women who are in harm's way today. To not go forward with an energy policy that protects those in the field and those at home and strengthens our freedom, our democracy, and our economy will be walking away from one of the most important responsibilities we have.

I hope we will pass an energy policy that does all that needs to be done: That creates incentives for conservation; that asks Americans to conserve;

that puts in place a program asking Americans to do certain things, not forcing them but asking them.

I hope we will look at new sources of energy, such as nuclear power, wind energy, and solar energy—all the sources that are renewable—and producing in our own country, creating the jobs in our country rather than exporting them overseas, giving good living wages to people in our country to drill for our own natural resources. That is a balanced energy package. Anything less would be an abdication of the responsibility of the Senate.

I thank the Chair, and I yield the floor.

RECESS

The PRESIDING OFFICER. Under the previous order, the hour of 12:30 p.m. having arrived, the Senate stands in recess until 2:15 p.m.

Thereupon, the Senate, at 12:34 p.m., recessed until 2:15 p.m. and reassembled when called to order by the Presiding Officer (Ms. CANTWELL).

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001—Continued

The PRESIDING OFFICER. The Senator from New Mexico.

AMENDMENT NO. 2917, AS FURTHER MODIFIED

Mr. BINGAMAN. Madam President, I ask unanimous consent that the amendment before the Senate be modified with the language that is already at the desk.

The PRESIDING OFFICER. Without objection, the amendment is so modified.

The amendment (No. 2917), as further modified, is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Energy Policy Act of 2002''.

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DIVISION A—RELIABLE AND DIVERSE POWER GENERATION AND TRANSMISSION

TITLE I—REGIONAL COORDINATION

SEC. 101. POLICY ON REGIONAL COORDINATION.

(a) STATEMENT OF POLICY.—It is the policy of the Federal Government to encourage States to coordinate, on a regional basis, State energy policies to provide reliable and affordable energy services to the public while minimizing the impact of providing energy services on communities and the environment.

(b) DEFINITION OF ENERGY SERVICES.—For purposes of this section, the term ''energy services'' means—

(1) the generation or transmission of electric energy,

(2) the transportation, storage, and distribution of crude oil, residual fuel oil, refined petroleum product, or natural gas, or

(3) the reduction in load through increased efficiency, conservation, or load control measures.

SEC. 102. FEDERAL SUPPORT FOR REGIONAL COORDINATION.

(a) TECHNICAL ASSISTANCE.—The Secretary of Energy shall provide technical assistance to States and regional organizations formed by two or more States to assist them in coordinating their energy policies on a regional basis. Such technical assistance may include assistance in—

(1) assessing future supply availability and demand requirements,

(2) planning and siting additional energy infrastructure, including generating facilities, electric transmission facilities, pipelines, refineries, and distributed generation facilities to meet regional needs,

(3) identifying and resolving problems in distribution networks,

(4) developing plans to respond to surge demand or emergency needs, and

(5) developing renewable energy, energy efficiency, conservation, and load control programs.

(b) ANNUAL CONFERENCE ON REGIONAL ENERGY COORDINATION.—

(1) ANNUAL CONFERENCE.—The Secretary of Energy shall convene an annual conference to promote regional coordination on energy policy and infrastructure issues.

(2) PARTICIPATION.—The Secretary of Energy shall invite appropriate representatives of Federal, State, and regional energy organizations, and other interested parties.

(3) STATE AND FEDERAL AGENCY COOPERATION.—The Secretary of Energy shall consult and cooperate with State and regional energy organizations, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of the Treasury, the Chairman of the Federal Energy Regulatory Commission, the Administrator of the Environmental Protection Agency, and the Chairman of the Council on Environmental Quality in the planning and conduct of the conference.

(4) AGENDA.—The Secretary of Energy, in consultation with the officials identified in paragraph (3) and participants identified in paragraph (2), shall establish an agenda for each conference that promotes regional coordination on energy policy and infrastructure issues.

(5) RECOMMENDATIONS.—Not later than 60 days after the conclusion of each annual conference, the Secretary of Energy shall report to the President and the Congress recommendations arising out of the conference that may improve—

(A) regional coordination on energy policy and infrastructure issues, and

(B) Federal support for regional coordination.

TITLE II—ELECTRICITY

Subtitle A—Amendments to the Federal Power Act

SEC. 201. DEFINITIONS.

(a) DEFINITION OF ELECTRIC UTILITY.—Section 3(22) of the Federal Power Act (16 U.S.C. 796(22)) is amended to read as follows:

''(22) 'electric utility' means any person or Federal or State agency (including any municipality) that sells electric energy; such term includes the Tennessee Valley Authority and each Federal power marketing agency.

(b) DEFINITION OF TRANSMITTING UTILITY.—Section 3(23) of the Federal Power Act (16 U.S.C. 796(23)) is amended to read as follows:

''(23) TRANSMITTING UTILITY.—The term 'transmitting utility' means an entity (including any entity described in section 201(f)) that owns or operates facilities used for the transmission of electric energy in—

''(A) interstate commerce; or

''(B) for the sale of electric energy at wholesale.''.

SEC. 202. ELECTRIC UTILITY MERGERS.

Section 203(a) of the Federal Power Act (16 U.S.C. 824b) is amended to read as follows:

''(a)(1) No public utility shall, without first having secured an order of the Commission authorizing it to do so—

''(A) sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of $1,000,000,

''(B) merge or consolidate, directly or indirectly, such facilities or any part thereof with the facilities of any other person, by any means whatsoever,

''(C) purchase, acquire, or take any security of any other public utility, or

''(D) purchase, lease, or otherwise acquire existing facilities for the generation of electric energy or for the production or transportation of natural gas.

''(2) No holding company in a holding company system that includes a transmitting utility or an electric utility company shall purchase, acquire, or take any security of, or, by any means whatsoever, directly or indirectly, merge or consolidate with a transmitting utility, an electric utility company, a gas utility company, or a holding company in a holding company system that includes a transmitting utility, an electric utility company, or a gas utility company, without first having secured an order of the Commission authorizing it to do so.

''(3) Upon application for such approval the Commission shall give reasonable notice in writing to the Governor and State commission of each of the States in which the physical property affected, or any part thereof, is situated, and to such other persons as it may deem advisable.

''(4) After notice and opportunity for hearing, if the Commission finds that the proposed disposition, consolidation, acquisition,

or control will be consistent with the public interest, it shall approve the same.

''(5) For purposes of this subsection, the terms 'electric utility company', 'gas utility company', 'holding company', and 'holding company system' have the meaning given those terms in the Public Utility Holding Company Act of 2002.

''(6) Notwithstanding section 201(b)(1), facilities used for the generation of electric energy shall be subject to the jurisdiction of the Commission for purposes of this section.''.

SEC. 203. MARKET-BASED RATES.

(a) APPROVAL OF MARKET-BASED RATES.—Section 205 of the Federal Power Act (16 U.S.C. 824d) is amended by adding at the end the following:

''(h) The Commission may determine whether a market-based rate for the sale of electric energy subject to the jurisdiction of the Commission is just and reasonable and not unduly discriminatory or preferential. In making such determination, the Commission shall consider—

''(1) whether the seller and its affiliates have, or have adequately mitigated, market power in the generation and transmission of electric energy;

''(2) whether the sale is made in a competitive market;

''(3) whether market mechanisms, such as power exchanges and bid auctions, function adequately;

''(4) the effect of demand response mechanisms;

''(5) the effect of mechanisms or requirements intended to ensure adequate reserve margins; and

''(6) other such considerations as the Commission may deem to be appropriate and in the public interest.''.

(b) REVOCATION OF MARKET-BASED RATES.—Section 206 of the Federal Power Act (16 U.S.C. 824e) is amended by adding at the end the following:

''(f) Whenever the Commission, after a hearing had upon its own motion or upon complaint, finds that a rate charged by a public utility authorized to charge a market-based rate under section 205 is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate and fix the same by order in accordance with this section, or order such other action as will, in the judgment of the Commission, adequately ensure a just and reasonable market-based rate.''.

SEC. 204. REFUND EFFECTIVE DATE.

Section 206(b) of the Federal Power Act (16 U.S.C. 824e(b)) is amended by—

(1) striking ''60 days after the filing of such complaint nor later than 5 months after the expiration of such 60-day period'' in the second sentence and inserting ''on which the complaint is filed''; and

(2) striking ''60 days after the publication by the Commission of notice of its intention to initiate such proceeding nor later than 5 months after the expiration of such 60-day period'' in the third sentence and inserting ''on which the Commission publishes notice of its intention to initiate such proceeding''.

SEC. 205. TRANSMISSION INTERCONNECTIONS.

Section 210 of the Federal Power Act (16 U.S.C. 824i) is amended to read as follows:

''TRANSMISSION INTERCONNECTION AUTHORITY

''SEC. 210. (a)(1) The Commission shall, by rule, establish technical standards and procedures for the interconnection of facilities used for the generation of electric energy with facilities used for the transmission of electric energy in interstate commerce. The rule shall provide—

''(A) criteria to ensure that an interconnection will not unreasonably impair the reliability of the transmission system; and

''(B) criteria for the apportionment or reimbursement of the costs of making the interconnection.

''(2) Notwithstanding section 201(f), a transmitting utility shall interconnect its transmission facilities with the generation facilities of a power producer upon the application of the power producer if the power producer complies with the requirements of the rule.

''(b) Upon the application of a power producer or its own motion, the Commission may, after giving notice and an opportunity for a hearing to any entity whose interest may be affected, issue an order requiring—

''(1) the physical connection of facilities used for the generation of electric energy with facilities used for the transmission of electric energy in interstate commerce;

''(2) such action as may be necessary to make effective any such physical connection;

''(3) such sale or exchange of electric energy or other coordination, as may be necessary to carry out the purposes of such order; or

''(4) such increase in transmission capacity as may be necessary to carry out the purposes of such order.

''(c) As used in this section, the term 'power producer' means an entity that owns or operates a facility used for the generation of electric energy.''.

SEC. 206. OPEN ACCESS TRANSMISSION BY CERTAIN UTILITIES.

Part II of the Federal Power Act is further amended by inserting after section 211 the following:

''OPEN ACCESS BY UNREGULATED TRANSMITTING UTILITIES

''SEC. 211A. (1) Subject to section 212(h), the Commission may, by rule or order, require an unregulated transmitting utility to provide transmission services—

''(A) at rates that are comparable to those that the unregulated transmitting utility charges itself, and

''(B) on terms and conditions (not relating to rates) that are comparable to those under Commission rules that require public utilities to offer open access transmission services and that are not unduly discriminatory or preferential.

''(2) The Commission shall exempt from any rule or order under this subsection any unregulated transmitting utility that—

''(A) sells no more than 4,000,000 megawatt hours of electricity per year,

''(B) does not own or operate any transmission facilities that are necessary for operating an interconnected transmission system (or any portion thereof), or

''(C) meets other criteria the Commission determines to be in the public interest.

''(3) The rate changing procedures applicable to public utilities under subsections (c) and (d) of section 205 are applicable to unregulated transmitting utilities for purposes of this section.

''(4) In exercising its authority under paragraph (1), the Commission may remand transmission rates to an unregulated transmitting utility for review and revision where necessary to meet the requirements of paragraph (1).

''(5) The provision of transmission services under paragraph (1) does not preclude a request for transmission services under section 211.

''(6) The Commission may not require a State or municipality to take action under this section that constitutes a private business use for purposes of section 141 of the Internal Revenue Code of 1986 (26 U.S.C. 141).

''(7) For purposes of this subsection, the term 'unregulated transmitting utility' means an entity that—

''(A) owns or operates facilities used for the transmission of electric energy in interstate commerce, and

''(B) is either an entity described in section 201(f) or a rural electric cooperative.''.

SEC. 207. ELECTRIC RELIABILITY STANDARDS.

Part II of the Federal Power Act is further amended by adding at the end the following:

''SEC. 215. ELECTRIC RELIABILITY STANDARDS.

''(a) DUTY OF THE COMMISSION.—The Commission shall establish and enforce one or more systems of mandatory electric reliability standards to ensure the reliable operation of the interstate transmission system, which shall be applicable to—

''(1) any entity that sells, purchases, or transmits, electric energy using the interstate transmission system, and

''(2) any entity that owns, operates, or maintains facilities that are a part of the interstate transmission system.

''(b) STANDARDS.—In carrying out its responsibility under subsection (a), the Commission may adopt and enforce, in whole or in part, a reliability standard proposed or adopted by the North American Electric Reliability Council, a regional reliability council, a similar organization, or a State regulatory authority.

''(c) ENFORCEMENT.—In carrying out its responsibility under subsection (a), the Commission may certify one or more self-regulating reliability organizations (which may include the North American Electric Reliability Council, one or more regional reliability councils, one or more regional transmission organizations, or any similar organization) to ensure the reliable operation of the interstate transmission system and to monitor and enforce compliance of their members with electric reliability standards adopted under this section.

''(d) COOPERATION WITH CANADA AND MEXICO.—The Commission shall ensure that any self-regulating reliability organization certified under this section, one or more of whose members are interconnected with transmitting utilities in Canada or the Republic of Mexico, provide for the participation of such utilities in the governance of the organization and the adoption of reliability standards. Nothing in this section shall be construed to extend the jurisdiction of the Commission outside of the United States.

''(e) PRESERVATION OF STATE AUTHORITY.—Nothing in this section shall be construed to preempt the authority of any State to take action to ensure the safety, adequacy, and reliability of local distribution facilities service within the State, except where the exercise of such authority unreasonably impairs the reliability of the interstate transmission system.

''(f) DEFINITIONS.—For purposes of this section:

''(1) The term 'interstate transmission system' means the network of facilities used for the transmission of electric energy in interstate commerce.

''(2) The term 'reliability' means the ability of the interstate transmission system to transmit sufficient electric energy to supply the aggregate electric demand and energy requirements of electricity consumers at all times and the ability of the system to withstand sudden disturbances.''.

SEC. 208. MARKET TRANSPARENCY RULES.

Part II of the Federal Power Act is further amended by adding at the end the following:

''SEC. 216. MARKET TRANSPARENCY RULES.

''(a) COMMISSION RULES.—Not later than 180 days after the date of enactment of this section, the Commission shall issue rules establishing an electronic information system to provide information about the availability and price of wholesale electric energy and

transmission services to the Commission, state commissions, buyers and sellers of wholesale electric energy, users of transmission services, and the public on a timely basis.

''(b) INFORMATION REQUIRED.—The Commission shall require—

''(1) each regional transmission organization to provide statistical information about the available capacity and capacity constraints of transmission facilities operated by the organization; and

''(2) each broker, exchange, or other market-making entity that matches offers to sell and offers to buy wholesale electric energy in interstate commerce to provide statistical information about the amount and sale price of sales of electric energy at wholesale in interstate commerce it transacts.

''(c) TIMELY BASIS.—The Commission shall require the information required under subsection (b) to be posted on the Internet as soon as practicable and updated as frequently as practicable.

''(d) PROTECTION OF SENSITIVE INFORMATION.—The Commission shall exempt from disclosure commercial or financial information that the Commission, by rule or order, determines to be privileged, confidential, or otherwise sensitive.''.

SEC. 209. ACCESS TO TRANSMISSION BY INTERMITTENT GENERATORS.

Part II of the Federal Power Act is further amended by adding at the end the following:

''SEC. 217. ACCESS TO TRANSMISSION BY INTERMITTENT GENERATORS.

''(a) FAIR TREATMENT OF INTERMITTENT GENERATORS.—The Commission shall ensure that all transmitting utilities provide transmission service to intermittent generators in a manner that does not penalize such generators, directly or indirectly, for characteristics that are—

''(1) inherent to intermittent energy resources; and

''(2) are beyond the control of such generators.

''(b) POLICIES.—The Commission shall ensure that the requirement in subsection (a) is met by adopting such policies as it deems appropriate which shall include, but not be limited to, the following:

''(1) Subject to the sole exception set forth in paragraph (2), the Commission shall ensure that the rates transmitting utilities charge intermittent generator customers for transmission services do not directly or indirectly penalize intermittent generator customers for scheduling deviations.

''(2) The Commission may exempt a transmitting utility from the requirement set forth in subsection (b) if the transmitting utility demonstrates that scheduling deviations by its intermittent generator customers are likely to have a substantial adverse impact on the reliability of the transmitting utility's system. For purposes of administering this exemption, there shall be a rebuttable presumption of no adverse impact where intermittent generators collectively constitute 20 percent or less of total generation interconnected with transmitting utility's system and using transmission services provided by transmitting utility.

''(3) The Commission shall ensure that to the extent any transmission charges recovering the transmitting utility's embedded costs are assessed to intermittent generators, they are assessed to such generators on the basis of kilowatt-hours generated rather than the intermittent generator's capacity.

''(4) The Commission shall require transmitting utilities to offer to intermittent generators, and may require transmitting utilities to offer to all transmission customers, access to nonfirm transmission service pursuant to long-term contracts of up to ten years duration under reasonable terms and conditions.

''(c) DEFINITIONS.—As used in this section:

''(1) The term 'intermittent generator' means a facility that generates electricity using wind or solar energy and no other energy source.

''(2) The term 'nonfirm transmission service' means transmission service provided on an 'as available' basis.

''(3) The term 'scheduling deviation' means delivery of more or less energy than has previously been forecast in a schedule submitted by an intermittent generator to a control area operator or transmitting utility.''.

SEC. 210. ENFORCEMENT.

(a) COMPLAINTS.—Section 306 of the Federal Power Act (16 U.S.C. 825e) is amended by—

(1) inserting ''electric utility,'' after ''Any person,''; and

(2) inserting ''transmitting utility,'' after ''licensee'' each place it appears.

(b) INVESTIGATIONS.—Section 307(a) of the Federal Power Act (16 U.S.C. 825f(a)) is amended by inserting ''or transmitting utility'' after ''any person'' in the first sentence.

(c) REVIEW OF COMMISSION ORDERS.—Section 313(a) of the Federal Power Act (16 U.S.C. 8251) is amended by inserting ''electric utility,'' after ''Any person,'' in the first sentence.

(d) CRIMINAL PENALTIES.—Section 316(c) of the Federal Power Act (16 U.S.C. 825o(c)) is repealed.

(e) CIVIL PENALTIES.—Section 316A of the Federal Power Act (16 U.S.C. 825o–1) is amended by striking ''section 211, 212, 213, or 214'' each place it appears and inserting ''Part II''.

Subtitle B—Amendments to the Public Utility Holding Company Act

SEC. 221. SHORT TITLE.

This subtitle may be cited as the ''Public Utility Holding Company Act of 2002''.

SEC. 222. DEFINITIONS.

For purposes of this subtitle:

(1) The term ''affiliate'' of a company means any company, 5 percent or more of the outstanding voting securities of which are owned, controlled, or held with power to vote, directly or indirectly, by such company.

(2) The term ''associate company'' of a company means any company in the same holding company system with such company.

(3) The term ''Commission'' means the Federal Energy Regulatory Commission.

(4) The term ''company'' means a corporation, partnership, association, joint stock company, business trust, or any organized group of persons, whether incorporated or not, or a receiver, trustee, or other liquidating agent of any of the foregoing.

(5) The term ''electric utility company'' means any company that owns or operates facilities used for the generation, transmission, or distribution of electric energy for sale.

(6) The terms ''exempt wholesale generator'' and ''foreign utility company'' have the same meanings as in sections 32 and 33, respectively, of the Public Utility Holding Company Act of 1935 (15 U.S.C. 79z–5a, 79z–5b), as those sections existed on the day before the effective date of this subtitle.

(7) The term ''gas utility company'' means any company that owns or operates facilities used for distribution at retail (other than the distribution only in enclosed portable containers or distribution to tenants or employees of the company operating such facilities for their own use and not for resale) of natural or manufactured gas for heat, light, or power.

(8) The term ''holding company'' means—

(A) any company that directly or indirectly owns, controls, or holds, with power to vote, 10 percent or more of the outstanding voting securities of a public utility company or of a holding company of any public utility company; and

(B) any person, determined by the Commission, after notice and opportunity for hearing, to exercise directly or indirectly (either alone or pursuant to an arrangement or understanding with one or more persons) such a controlling influence over the management or policies of any public utility company or holding company as to make it necessary or appropriate for the rate protection of utility customers with respect to rates that such person be subject to the obligations, duties, and liabilities imposed by this subtitle upon holding companies.

(9) The term ''holding company system'' means a holding company, together with its subsidiary companies.

(10) The term ''jurisdictional rates'' means rates established by the Commission for the transmission of electric energy in interstate commerce, the sale of electric energy at wholesale in interstate commerce, the transportation of natural gas in interstate commerce, and the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use.

(11) The term ''natural gas company'' means a person engaged in the transportation of natural gas in interstate commerce or the sale of such gas in interstate commerce for resale.

(12) The term ''person'' means an individual or company.

(13) The term ''public utility'' means any person who owns or operates facilities used for transmission of electric energy in interstate commerce or sales of electric energy at wholesale in interstate commerce.

(14) The term ''public utility company'' means an electric utility company or a gas utility company.

(15) The term ''State commission'' means any commission, board, agency, or officer, by whatever name designated, of a State, municipality, or other political subdivision of a State that, under the laws of such State, has jurisdiction to regulate public utility companies.

(16) The term ''subsidiary company'' of a holding company means—

(A) any company, 10 percent or more of the outstanding voting securities of which are directly or indirectly owned, controlled, or held with power to vote, by such holding company; and

(B) any person, the management or policies of which the Commission, after notice and opportunity for hearing, determines to be subject to a controlling influence, directly or indirectly, by such holding company (either alone or pursuant to an arrangement or understanding with one or more other persons) so as to make it necessary for the rate protection of utility customers with respect to rates that such person be subject to the obligations, duties, and liabilities imposed by this subtitle upon subsidiary companies of holding companies.

(17) The term ''voting security'' means any security presently entitling the owner or holder thereof to vote in the direction or management of the affairs of a company.

SEC. 223. REPEAL OF THE PUBLIC UTILITY HOLDING COMPANY ACT OF 1935.

The Public Utility Holding Company Act of 1935 (15 U.S.C. 79 et seq.) is repealed.

SEC. 224. FEDERAL ACCESS TO BOOKS AND RECORDS.

(a) IN GENERAL.—Each holding company and each associate company thereof shall maintain, and shall make available to the

Commission, such books, accounts, memoranda, and other records as the Commission deems to be relevant to costs incurred by a public utility or natural gas company that is an associate company of such holding company and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(b) AFFILIATE COMPANIES.—Each affiliate of a holding company or of any subsidiary company of a holding company shall maintain, and shall make available to the Commission, such books, accounts, memoranda, and other records with respect to any transaction with another affiliate, as the Commission deems to be relevant to costs incurred by a public utility or natural gas company that is an associate company of such holding company and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(c) HOLDING COMPANY SYSTEMS.—The Commission may examine the books, accounts, memoranda, and other records of any company in a holding company system, or any affiliate thereof, as the Commission deems to be relevant to costs incurred by a public utility or natural gas company within such holding company system and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(d) CONFIDENTIALITY.—No member, officer, or employee of the Commission shall divulge any fact or information that may come to his or her knowledge during the course of examination of books, accounts, memoranda, or other records as provided in this section, except as may be directed by the Commission or by a court of competent jurisdiction.

SEC. 225. STATE ACCESS TO BOOKS AND RECORDS.

(a) IN GENERAL.—Upon the written request of a State commission having jurisdiction to regulate a public utility company in a holding company system, the holding company or any associate company or affiliate thereof, other than such public utility company, wherever located, shall produce for inspection books, accounts, memoranda, and other records that—

(1) have been identified in reasonable detail by the State commission;

(2) the State commission deems are relevant to costs incurred by such public utility company; and

(3) are necessary for the effective discharge of the responsibilities of the State commission with respect to such proceeding.

(b) LIMITATION.—Subsection (a) does not apply to any person that is a holding company solely by reason of ownership of one or more qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.).

(c) CONFIDENTIALITY OF INFORMATION.—The production of books, accounts, memoranda, and other records under subsection (a) shall be subject to such terms and conditions as may be necessary and appropriate to safeguard against unwarranted disclosure to the public of any trade secrets or sensitive commercial information.

(d) EFFECT ON STATE LAW.—Nothing in this section shall preempt applicable State law concerning the provision of books, accounts, memoranda, and other records, or in any way limit the rights of any State to obtain books, accounts, memoranda, and other records under any other Federal law, contract, or otherwise.

(e) COURT JURISDICTION.—Any United States district court located in the State in which the State commission referred to in subsection (a) is located shall have jurisdiction to enforce compliance with this section.

SEC. 226. EXEMPTION AUTHORITY.

(a) RULEMAKING.—Not later than 90 days after the effective date of this subtitle, the Commission shall promulgate a final rule to exempt from the requirements of section 224 any person that is a holding company, solely with respect to one or more—

(1) qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.);

(2) exempt wholesale generators; or

(3) foreign utility companies.

(b) OTHER AUTHORITY.—The Commission shall exempt a person or transaction from the requirements of section 224, if, upon application or upon the motion of the Commission—

(1) the Commission finds that the books, accounts, memoranda, and other records of any person are not relevant to the jurisdictional rates of a public utility or natural gas company; or

(2) the Commission finds that any class of transactions is not relevant to the jurisdictional rates of a public utility or natural gas company.

SEC. 227. AFFILIATE TRANSACTIONS.

(a) COMMISSION AUTHORITY UNAFFECTED.—Nothing in this subtitle shall limit the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) to require that jurisdictional rates are just and reasonable, including the ability to deny or approve the pass through of costs, the prevention of cross-subsidization, and the promulgation of such rules and regulations as are necessary or appropriate for the protection of utility consumers.

(b) RECOVERY OF COSTS.—Nothing in this subtitle shall preclude the Commission or a State commission from exercising its jurisdiction under otherwise applicable law to determine whether a public utility company, public utility, or natural gas company may recover in rates any costs of an activity performed by an associate company, or any costs of goods or services acquired by such public utility company from an associate company.

SEC. 228. APPLICABILITY.

Except as otherwise specifically provided in this subtitle, no provision of this subtitle shall apply to, or be deemed to include—

(1) the United States;

(2) a State or any political subdivision of a State;

(3) any foreign governmental authority not operating in the United States;

(4) any agency, authority, or instrumentality of any entity referred to in paragraph (1), (2), or (3); or

(5) any officer, agent, or employee of any entity referred to in paragraph (1), (2), or (3) acting as such in the course of his or her official duty.

SEC. 229. EFFECT ON OTHER REGULATIONS.

Nothing in this subtitle precludes the Commission or a State commission from exercising its jurisdiction under otherwise applicable law to protect utility customers.

SEC. 230. ENFORCEMENT.

The Commission shall have the same powers as set forth in sections 306 through 317 of the Federal Power Act (16 U.S.C. 825e–825p) to enforce the provisions of this subtitle.

SEC. 231. SAVINGS PROVISIONS.

(a) IN GENERAL.—Nothing in this subtitle prohibits a person from engaging in or continuing to engage in activities or transactions in which it is legally engaged or authorized to engage on the effective date of this subtitle.

(b) EFFECT ON OTHER COMMISSION AUTHORITY.—Nothing in this subtitle limits the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) (including section 301 of that Act) or the Natural Gas Act (15 U.S.C. 717 et seq.) (including section 8 of that Act).

SEC. 232. IMPLEMENTATION.

Not later than 18 months after the date of enactment of this subtitle, the Commission shall—

(1) promulgate such regulations as may be necessary or appropriate to implement this subtitle (other than section 225); and

(2) submit to the Congress detailed recommendations on technical and conforming amendments to Federal law necessary to carry out this subtitle and the amendments made by this subtitle.

SEC. 233. TRANSFER OF RESOURCES.

All books and records that relate primarily to the functions transferred to the Commission under this subtitle shall be transferred from the Securities and Exchange Commission to the Commission.

SEC. 234. INTER-AGENCY REVIEW OF COMPETITION IN THE WHOLESALE AND RETAIL MARKETS FOR ELECTRIC ENERGY.

(a) TASK FORCE.—There is established an inter-agency task force, to be known as the ''Electric Energy Market Competition Task Force'' (referred to in this section as the ''task force''), which shall consist of—

(1) 1 member each from—

(A) the Department of Justice, to be appointed by the Attorney General of the United States;

(B) the Federal Energy Regulatory Commission, to be appointed by the chairman of that Commission; and

(C) the Federal Trade Commission, to be appointed by the chairman of that Commission; and

(2) 2 advisory members (who shall not vote), of whom—

(A) 1 shall be appointed by the Secretary of Agriculture to represent the Rural Utility Service; and

(B) 1 shall be appointed by the Chairman of the Securities and Exchange Commission to represent that Commission.

(b) STUDY AND REPORT.—

(1) STUDY.—The task force shall perform a study and analysis of the protection and promotion of competition within the wholesale and retail market for electric energy in the United States.

(2) REPORT.—

(A) FINAL REPORT.—Not later than 1 year after the effective date of this subtitle, the task force shall submit a final report of its findings under paragraph (1) to the Congress.

(B) PUBLIC COMMENT.—At least 60 days before submission of a final report to the Congress under subparagraph (A), the task force shall publish a draft report in the Federal Register to provide for public comment.

(c) FOCUS.—The study required by this section shall examine—

(1) the best means of protecting competition within the wholesale and retail electric market;

(2) activities within the wholesale and retail electric market that may allow unfair and unjustified discriminatory and deceptive practices;

(3) activities within the wholesale and retail electric market, including mergers and acquisitions, that deny market access or suppress competition;

(4) cross-subsidization that may occur between regulated and nonregulated activities; and

(5) the role of State public utility commissions in regulating competition in the wholesale and retail electric market.

(d) CONSULTATION.—In performing the study required by this section, the task force shall consult with and solicit comments from its advisory members, the States, representatives of the electric power industry, and the public.

SEC. 235. GAO STUDY ON IMPLEMENTATION.

(a) STUDY.—The Comptroller General shall conduct a study of the success of the Federal

Government and the States during the 18-month period following the effective date of this subtitle in—

(1) the prevention of anticompetitive practices and other abuses by public utility holding companies, including cross-subsidization and other market power abuses; and

(2) the promotion of competition and efficient energy markets to the benefit of consumers.

(b) REPORT TO CONGRESS.—Not earlier than 18 months after the effective date of this subtitle or later than 24 months after that effective date, the Comptroller General shall submit a report to the Congress on the results of the study conducted under subsection (a), including probable causes of its findings and recommendations to the Congress and the States for any necessary legislative changes.

SEC. 236. EFFECTIVE DATE.

This subtitle shall take effect 18 months after the date of enactment of this subtitle.

SEC. 237. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such funds as may be necessary to carry out this subtitle.

SEC. 238. CONFORMING AMENDMENTS TO THE FEDERAL POWER ACT.

(a) CONFLICT OF JURISDICTION.—Section 318 of the Federal Power Act (16 U.S.C. 825q) is repealed.

(b) DEFINITIONS.—

(1) Section 201(g) of the Federal Power Act (16 U.S.C. 824(g)) is amended by striking ''1935'' and inserting ''2002''.

(2) Section 214 of the Federal Power Act (16 U.S.C. 824m) is amended by striking ''1935'' and inserting ''2002''.

Subtitle C—Amendments to the Public Utility Regulatory Policies Act of 1978

SEC. 241. REAL-TIME PRICING STANDARD.

(a) ADOPTION OF STANDARD.—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:

''(11) REAL-TIME PRICING.—(A) Each electric utility shall, at the request of an electric consumer, provide electric service under a real-time rate schedule, under which the rate charged by the electric utility varies by the hour (or smaller time interval) according to changes in the electric utility's wholesale power cost. The real-time pricing service shall enable the electric consumer to manage energy use and cost through real-time metering and communications technology.

''(B) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.

''(C) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall consider and make a determination concerning whether it is appropriate to implement the standard set out in subparagraph (A) not later than one year after the date of enactment of this paragraph.''.

(b) SPECIAL RULES FOR REAL-TIME PRICING STANDARD.—Section 115 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625) is amended by adding at the end the following:

''(i) REAL-TIME PRICING.—In a State that permits third-party marketers to sell electric energy to retail electric consumers, the electric consumer shall be entitled to receive the same real-time metering and communication service as a direct retail electric consumer of the electric utility.''.

SEC. 242. ADOPTION OF ADDITIONAL STANDARDS.

(a) ADOPTION OF STANDARDS.—Section 113(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2623(b)) is amended by adding at the end the following:

''(6) DISTRIBUTED GENERATION.— Each electric utility shall provide distributed generation, combined heat and power, and district heating and cooling systems competitive access to the local distribution grid and competitive pricing of service, and shall use simplified standard contracts for the interconnection of generating facilities that have a power production capacity of 250 kilowatts or less.

''(7) DISTRIBUTION INTERCONNECTIONS.—No electric utility may refuse to interconnect a generating facility with the distribution facilities of the electric utility if the owner or operator of the generating facility complies with technical standards adopted by the State regulatory authority and agrees to pay the costs established by such State regulatory authority.

''(8) MINIMUM FUEL AND TECHNOLOGY DIVERSITY STANDARD.—Each electric utility shall develop a plan to minimize dependence on one fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.

''(9) FOSSIL FUEL EFFICIENCY.—Each electric utility shall develop and implement a ten-year plan to increase the efficiency of its fossil fuel generation and shall monitor and report to its State regulatory authority excessive greenhouse gas emissions resulting from the inefficient operation of its fossil fuel generating plants.''.

(b) TIME FOR ADOPTING STANDARDS.—Section 113 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2623) is further amended by adding at the end the following:

''(d) SPECIAL RULE.—For purposes of implementing paragraphs (6), (7), (8), and (9) of subsection (b), any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this subsection.''.

SEC. 243. TECHNICAL ASSISTANCE.

Section 132(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2642(c)) is amended to read as follows:

''(c) TECHNICAL ASSISTANCE FOR CERTAIN RESPONSIBILITIES.—The Secretary may provide such technical assistance as he determines appropriate to assist State regulatory authorities and electric utilities in carrying out their responsibilities under section 111(d)(11) and paragraphs (6), (7), (8), and (9) of section 113(b).''.

SEC. 244. COGENERATION AND SMALL POWER PRODUCTION PURCHASE AND SALE REQUIREMENTS.

(a) TERMINATION OF MANDATORY PURCHASE AND SALE REQUIREMENTS.—Section 210 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 824a–3) is amended by adding at the end the following:

''(m) TERMINATION OF MANDATORY PURCHASE AND SALE REQUIREMENTS.—

''(1) IN GENERAL.—After the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obligation to purchase or sell electric energy under this section.

''(2) NO EFFECT ON EXISTING RIGHTS AND REMEDIES.—Nothing in this subsection affects the rights or remedies of any party with respect to the purchase or sale of electric energy or capacity from or to a facility under this section under any contract or obligation to purchase or to sell electric energy or capacity on the date of enactment of this subsection, including—

''(A) the right to recover costs of purchasing such electric energy or capacity; and

''(B) in States without competition for retail electric supply, the obligation of a utility to provide, at just and reasonable rates for consumption by a qualifying small power production facility or a qualifying cogeneration facility, backup, standby, and maintenance power.

''(3) RECOVERY OF COSTS.—

''(A) REGULATION.—To ensure recovery by an electric utility that purchases electric energy or capacity from a qualifying facility pursuant to any legally enforceable obligation entered into or imposed under this section before the date of enactment of this subsection, of all prudently incurred costs associated with the purchases, the Commission shall issue and enforce such regulations as may be required to ensure that the electric utility shall collect the prudently incurred costs associated with such purchases.

''(B) ENFORCEMENT.—A regulation under subparagraph (A) shall be enforceable in accordance with the provisions of law applicable to enforcement of regulations under the Federal Power Act (16 U.S.C. 791a et seq.).''.

(b) ELIMINATION OF OWNERSHIP LIMITATIONS.—

(1) Section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)) is amended to read as follows:

''(C) 'qualifying small power production facility' means a small power production facility that the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe.''.

(2) Section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)) is amended to read as follows:

''(B) 'qualifying cogeneration facility' means a cogeneration facility that the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe.''.

SEC. 245. NET METERING.

Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

''SEC. 605. NET METERING FOR RENEWABLE ENERGY AND FUEL CELLS.

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

''(1) The term 'eligible on-site generating facility' means—

''(A) a facility on the site of a residential electric consumer with a maximum generating capacity of 10 kilowatts or less that is fueled by solar energy, wind energy, or fuel cells; or

''(B) a facility on the site of a commercial electric consumer with a maximum generating capacity of 500 kilowatts or less that is fueled solely by a renewable energy resource, landfill gas, or a high efficiency system.

''(2) The term 'renewable energy resource' means solar, wind, biomass, or geothermal energy.

''(3) The term 'high efficiency system' means fuel cells or combined heat and power.

''(4) The term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

''(b) REQUIREMENT TO PROVIDE NET METERING SERVICE.—Each electric utility shall make available upon request net metering service to an electric consumer that the electric utility serves.

''(c) RATES AND CHARGES.—

''(1) IDENTICAL CHARGES.—An electric utility—

''(A) shall charge the owner or operator of an on-site generating facility rates and charges that are identical to those that would be charged other electric consumers of the electric utility in the same rate class; and

''(B) shall not charge the owner or operator of an on-site generating facility any additional standby, capacity, interconnection, or other rate or charge.

''(2) MEASUREMENT.—An electric utility that sells electric energy to the owner or operator of an on-site generating facility shall measure the quantity of electric energy produced by the on-site facility and the quantity of electric energy consumed by the owner or operator of an on-site generating facility during a billing period in accordance with normal metering practices.

''(3) ELECTRIC ENERGY SUPPLIED EXCEEDING ELECTRIC ENERGY GENERATED.—If the quantity of electric energy sold by the electric utility to an on-site generating facility exceeds the quantity of electric energy supplied by the on-site generating facility to the electric utility during the billing period, the electric utility may bill the owner or operator for the net quantity of electric energy sold, in accordance with normal metering practices.

''(4) ELECTRIC ENERGY GENERATED EXCEEDING ELECTRIC ENERGY SUPPLIED.—If the quantity of electric energy supplied by the on-site generating facility to the electric utility exceeds the quantity of electric energy sold by the electric utility to the on-site generating facility during the billing period—

''(A) the electric utility may bill the owner or operator of the on-site generating facility for the appropriate charges for the billing period in accordance with paragraph (2); and

''(B) the owner or operator of the on-site generating facility shall be credited for the excess kilowatt-hours generated during the billing period, with the kilowatt-hour credit appearing on the bill for the following billing period.

''(d) SAFETY AND PERFORMANCE STANDARDS.—

''(1) An eligible on-site generating facility and net metering system used by an electric consumer shall meet all applicable safety, performance, reliability, and interconnection standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories.

''(2) The Commission, after consultation with State regulatory authorities and nonregulated electric utilities and after notice and opportunity for comment, may adopt, by rule, additional control and testing requirements for on-site generating facilities and net metering systems that the Commission determines are necessary to protect public safety and system reliability.

''(e) APPLICATION.—This section applies to each electric utility during any calendar year in which the total sales of electric energy by such utility for purposes other than resale exceeded 1,000,000,000 kilowatt-hours during the preceding calendar year.''.

Subtitle D—Consumer Protections

SEC. 251. INFORMATION DISCLOSURE.

(a) OFFERS AND SOLICITATIONS.—The Federal Trade Commission shall issue rules requiring each electric utility that makes an offer to sell electric energy, or solicits electric consumers to purchase electric energy to provide the electric consumer a statement containing the following information—

(1) the nature of the service being offered, including information about interruptibility of service;

(2) the price of the electric energy, including a description of any variable charges;

(3) a description of all other charges associated with the service being offered, including access charges, exit charges, back-up service charges, stranded cost recovery charges, and customer service charges; and

(4) information the Federal Trade Commission determines is technologically and economically feasible to provide, is of assistance to electric consumers in making purchasing decisions, and concerns—

(A) the product or its price;

(B) the share of electric energy that is generated by each fuel type; and

(C) the environmental emissions produced in generating the electric energy.

(b) PERIODIC BILLINGS.—The Federal Trade Commission shall issue rules requiring any electric utility that sells electric energy to transmit to each of its electric consumers, in addition to the information transmitted pursuant to section 115(f) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625(f)), a clear and concise statement containing the information described in subsection (a)(4) for each billing period (unless such information is not reasonably ascertainable by the electric utility).

SEC. 252. CONSUMER PRIVACY.

(a) PROHIBITION.—The Federal Trade Commission shall issue rules prohibiting any electric utility that obtains consumer information in connection with the sale or delivery of electric energy to an electric consumer from using, disclosing, or permitting access to such information unless the electric consumer to whom such information relates provides prior written approval.

(b) PERMITTED USE.—The rules issued under this section shall not prohibit any electric utility from using, disclosing, or permitting access to consumer information referred to in subsection (a) for any of the following purposes:

(1) To facilitate an electric consumer's change in selection of an electric utility under procedures approved by the State or State regulatory authority.

(2) To initiate, render, bill, or collect for the sale or delivery of electric energy to electric consumers or for related services.

(3) To protect the rights or property of the person obtaining such information.

(4) To protect retail electric consumers from fraud, abuse, and unlawful subscription in the sale or delivery of electric energy to such consumers.

(5) For law enforcement purposes.

(6) For purposes of compliance with any Federal, State, or local law or regulation authorizing disclosure of information to a Federal, State, or local agency.

(c) AGGREGATE CONSUMER INFORMATION.—The rules issued under this subsection may permit a person to use, disclose, and permit access to aggregate consumer information and may require an electric utility to make such information available to other electric utilities upon request and payment of a reasonable fee.

(d) DEFINITIONS.—As used in this section:

(1) The term ''aggregate consumer information'' means collective data that relates to a group or category of retail electric consumers, from which individual consumer identities and characteristics have been removed.

(2) The term ''consumer information'' means information that relates to the quantity, technical configuration, type, destination, or amount of use of electric energy delivered to any retail electric consumer.

SEC. 253. UNFAIR TRADE PRACTICES.

(a) SLAMMING.—The Federal Trade Commission shall issue rules prohibiting the change of selection of an electric utility except with the informed consent of the electric consumer.

(b) CRAMMING.—The Federal Trade Commission shall issue rules prohibiting the sale of goods and services to an electric consumer unless expressly authorized by law or the electric consumer.

SEC. 254. APPLICABLE PROCEDURES.

The Federal Trade Commission shall proceed in accordance with section 553 of title 5, United States Code, when prescribing a rule required by this subtitle.

SEC. 255. FEDERAL TRADE COMMISSION ENFORCEMENT.

Violation of a rule issued under this subtitle shall be treated as a violation of a rule under section 18 of the Federal Trade Commission Act (15 U.S.C. 57a) respecting unfair or deceptive acts or practices. All functions and powers of the Federal Trade Commission under such Act are available to the Federal Trade Commission to enforce compliance with this subtitle notwithstanding any jurisdictional limits in such Act.

SEC. 256. STATE AUTHORITY.

Nothing in this subtitle shall be construed to preclude a State or State regulatory authority from prescribing and enforcing additional laws, rules, or procedures regarding the practices which are the subject of this section, so long as such laws, rules, or procedures are not inconsistent with the provisions of this section or with any rule prescribed by the Federal Trade Commission pursuant to it.

SEC. 257. APPLICATION OF SUBTITLE.

The provisions of this subtitle apply to each electric utility if the total sales of electric energy by such utility for purposes other than resale exceed 500 million kilowatt-hours per calendar year. The provisions of this subtitle do not apply to the operations of an electric utility to the extent that such operations relate to sales of electric energy for purposes of resale.

SEC. 258. DEFINITIONS.

As used in this subtitle:

(1) The term ''aggregate consumer information'' means collective data that relates to a group or category of electric consumers, from which individual consumer identities and identifying characteristics have been removed.

(2) The term ''consumer information'' means information that relates to the quantity, technical configuration, type, destination, or amount of use of electric energy delivered to an electric consumer.

(3) The terms ''electric consumer'', ''electric utility'', and ''State regulatory authority'' have the meanings given such terms in section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602).

Subtitle E—Renewable Energy and Rural Construction Grants

SEC. 261. RENEWABLE ENERGY PRODUCTION INCENTIVE.

(a) INCENTIVE PAYMENTS.—Section 1212(a) of the Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is amended by striking ''and which satisfies'' and all that follows through ''Secretary shall establish.'' and inserting the following:

''. The Secretary shall establish other procedures necessary for efficient administration of the program. The Secretary shall not establish any criteria or procedures that have the effect of assigning to proposals a higher or lower priority for eligibility or allocation of appropriated funds on the basis of the energy source proposed.''.

(b) QUALIFIED RENEWABLE ENERGY FACILITY.—Section 1212(b) of the Energy Policy Act of 1992 (42 U.S.C. 13317(b)) is amended—

(1) by striking ''a State or any political'' and all that follows through ''nonprofit electrical cooperative'' and inserting the following: ''an electricity-generating cooperative exempt from taxation under section 501(c)(12) or section 1381(a)(2)(C) of the Internal Revenue Code of 1986, a public utility described in section 115 of such Code, a State,

Commonwealth, territory, or possession of the United States or the District of Columbia, or a political subdivision thereof, or an Indian tribal government or subdivision thereof,''; and

(2) by inserting ''landfill gas, incremental hydropower, ocean'' after ''wind, biomass,''.

(c) ELIGIBILITY WINDOW.—Section 1212(c) of the Energy Policy Act of 1992 (42 U.S.C. 13317(c)) is amended by striking ''during the 10-fiscal year period beginning with the first full fiscal year occurring after the enactment of this section'' and inserting ''before October 1, 2013''.

(d) PAYMENT PERIOD.—Section 1212(d) of the Energy Policy Act of 1992 (42 U.S.C. 13317(d)) is amended by inserting ''or in which the Secretary finds that all necessary Federal and State authorizations have been obtained to begin construction of the facility'' after ''eligible for such payments''.

(e) AMOUNT OF PAYMENT.—Section 1212(e)(1) of the Energy Policy Act of 1992 (42 U.S.C. 13317(e)(1)) is amended by inserting ''landfill gas, incremental hydropower, ocean'' after ''wind, biomass,''.

(f) SUNSET.—Section 1212(f) of the Energy Policy Act of 1992 (42 U.S.C. 13317(f)) is amended by striking ''the expiration of'' and all that follows through ''of this section'' and inserting ''September 30, 2023''.

(g) INCREMENTAL HYDROPOWER; AUTHORIZATION OF APPROPRIATIONS.—Section 1212 of the Energy Policy Act of 1992 (42 U.S.C. 13317) is further amended by striking subsection (g) and inserting the following:

''(g) INCREMENTAL HYDROPOWER.—

''(1) PROGRAMS.—Subject to subsection (h)(2), if an incremental hydropower program meets the requirements of this section, as determined by the Secretary, the incremental hydropower program shall be eligible to receive incentive payments under this section.

''(2) DEFINITION OF INCREMENTAL HYDROPOWER.—In this subsection, the term 'incremental hydropower' means additional generating capacity achieved from increased efficiency or additions of new capacity at a hydroelectric facility in existence on the date of enactment of this paragraph.

''(h) AUTHORIZATION OF APPROPRIATIONS.—

''(1) IN GENERAL.—Subject to paragraph (2), there are authorized to be appropriated such sums as may be necessary to carry out this section for fiscal years 2003 through 2023.

''(2) LIMITATION ON FUNDS USED FOR INCREMENTAL HYDROPOWER PROGRAMS.—Not more than 30 percent of the amounts made available under paragraph (1) shall be used to carry out programs described in subsection (g)(2).

''(3) AVAILABILITY OF FUNDS.—Funds made available under paragraph (1) shall remain available until expended.''.

SEC. 262. ASSESSMENT OF RENEWABLE ENERGY RESOURCES.

(a) RESOURCE ASSESSMENT.—Not later than 3 months after the date of enactment of this title, and each year thereafter, the Secretary of Energy shall review the available assessments of renewable energy resources available within the United States, including solar, wind, biomass, ocean, geothermal, and hydroelectric energy resources, and undertake new assessments as necessary, taking into account changes in market conditions, available technologies and other relevant factors.

(b) CONTENTS OF REPORTS.—Not later than one year after the date of enactment of this title, and each year thereafter, the Secretary shall publish a report based on the assessment under subsection (a). The report shall contain—

(1) a detailed inventory describing the available amount and characteristics of the renewable energy resources, and

(2) such other information as the Secretary of Energy believes would be useful in developing such renewable energy resources, including descriptions of surrounding terrain, population and load centers, nearby energy infrastructure, location of energy and water resources, and available estimates of the costs needed to develop each resource.

SEC. 263. FEDERAL PURCHASE REQUIREMENT.

(a) REQUIREMENT.—The President shall ensure that, of the total amount of electric energy the federal government consumes during any fiscal year—

(1) not less than 3 percent in fiscal years 2003 through 2004,

(2) not less than 5 percent in fiscal years 2005 through 2009, and

(3) not less than 7.5 percent in fiscal year 2010 and each fiscal year thereafter—

shall be renewable energy. The President shall encourage the use of innovative purchasing practices, including aggregation and the use of renewable energy derivatives, by federal agencies.

(b) DEFINITION.—For purposes of this section, the term ''renewable energy'' means electric energy generated from solar, wind, biomass, geothermal, fuel cells, or additional hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric dam.

(c) TRIBAL POWER GENERATION.—To the maximum extent practicable, the President shall ensure that not less than one-tenth of the amount specified in subsection (a) shall be renewable energy that is generated by an Indian tribe or by a corporation, partnership, or business association which is wholly or majority owned, directly or indirectly, by an Indian tribe. For purposes of this subsection, the term ''Indian tribe'' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

SEC. 264. RURAL CONSTRUCTION GRANTS.

Section 313 of the Rural Electrification Act of 1936 (7 U.S.C. 940c) is amended by adding after subsection (b) the following:

''(c) RURAL AND REMOTE COMMUNITIES ELECTRIFICATION GRANTS.—The Secretary of Agriculture, in consultation with the Secretary of Energy and the Secretary of the Interior, may provide grants to eligible borrowers under this Act for the purpose of increasing energy efficiency, siting or upgrading transmission and distribution lines, or providing or modernizing electric facilities for—

''(1) a unit of local government of a State or territory; or

''(2) an Indian tribe or Tribal College or University as defined in section 316(b)(3) of the Higher Education Act (20 U.S.C. 1059c(b)(3)).

''(d) GRANT CRITERIA.—The Secretary shall make grants based on a determination of cost-effectiveness and most effective use of the funds to achieve the stated purposes of this section.

''(e) PREFERENCE.—In making grants under this section, the Secretary shall give a preference to renewable energy facilities.

''(f) DEFINITION.—For purposes of this section, the term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians;

''(g) AUTHORIZATION.—For the purpose of carrying out subsection (c), there are authorized to be appropriated to the Secretary $20,000,000 for each of the seven fiscal years following the date of enactment of this subsection.''.

SEC. 265. RENEWABLE PORTFOLIO STANDARD.

Title VI of the Public Utility Regulatory Policies Act of 1978 is further amended by adding at the end the following:

''SEC. 606. FEDERAL RENEWABLE PORTFOLIO STANDARD.

''(a) MINIMUM RENEWABLE GENERATION REQUIREMENT.—For each calendar year beginning with 2003, each retail electric supplier shall submit to the Secretary renewable energy credits in an amount equal to the required annual percentage, specified in subsection (b), of the total electric energy sold by the retail electric supplier to electric consumers in the calendar year. The retail electric supplier shall make this submission before April 1 of the following calendar year.

''(b) REQUIRED ANNUAL PERCENTAGE.—

''(1) For calendar years 2003 and 2004, the required annual percentage shall be determined by the Secretary in an amount less than the amount in paragraph (2);

''(2) For calendar year 2005 the required annual percentage shall be 2.5 percent of the retail electric supplier's base amount; and

''(3) For each calendar year from 2006 through 2020, the required annual percentage of the retail electric supplier's base amount shall be .5 percent greater than the required annual percentage for the calendar year immediately preceding.

''(c) SUBMISSION OF CREDITS.—(1) A retail electric supplier may satisfy the requirements of subsection (a) through the submission of—

''(A) renewable energy credits issued under subsection (d) for renewable energy generated by the retail electric supplier in the calendar year for which credits are being submitted or any of the two previous calendar years;

''(B) renewable energy credits obtained by purchase or exchange under subsection (e);

''(C) renewable energy credits borrowed against future years under subsection (f); or

''(D) any combination of credits under subparagraphs (A), (B), and (C).

''(2) A credit may be counted toward compliance with subsection (a) only once.

''(d) ISSUANCE OF CREDITS.—(1) The Secretary shall establish, not later than one year after the date of enactment of this section, a program to issue, monitor the sale or exchange of, and track renewable energy credits.

''(2) Under the program, an entity that generates electric energy through the use of a renewable energy resource may apply to the Secretary for the issuance of renewable energy credits. The application shall indicate—

''(A) the type of renewable energy resource used to produce the electricity,

''(B) the location where the electric energy was produced, and

''(C) any other information the Secretary determines appropriate.

''(3)(A) Except as provided in paragraphs (B) and (C), the Secretary shall issue to an entity one renewable energy credit for each kilowatt-hour of electric energy the entity generates in calendar year 2002 and any succeeding year through the use of a renewable energy resource at an eligible facility.

''(B) For incremental hydropower the credits shall be calculated based on a normalized annual capacity factor for each facility, and not actual generation. The calculation of the credits for incremental hydropower shall not

be based on any operational changes at the hydroelectric facility not directly associated with the efficiency improvements or capacity additions.

''(C) The Secretary shall issue two renewable energy credits for each kilowatt-hour of electric energy generated in calendar year 2002 and any succeeding year through the use of a renewable energy resource at an eligible facility located on Indian land. For purposes of this paragraph, renewable energy generated by biomass cofired with other fuels is eligible for two credits only if the biomass was grown on the land eligible under this paragraph.

''(D) To be eligible for a renewable energy credit, the unit of electric energy generated through the use of a renewable energy resource may be sold or may be used by the generator. If both a renewable energy resource and a non-renewable energy resource are used to generate the electric energy, the Secretary shall issue credits based on the proportion of the renewable energy resource used. The Secretary shall identify renewable energy credits by type and date of generation.

''(4) In order to receive a renewable energy credit, the recipient of a renewable energy credit shall pay a fee, calculated by the Secretary, in an amount that is equal to the administrative costs of issuing, recording, monitoring the sale or exchange of, and tracking the credit. The Secretary shall retain the fee and use it to pay these administrative costs.

''(5) When a generator sells electric energy generated through the use of a renewable energy resource to a retail electric supplier under a contract subject to section 210 of this Act, the retail electric supplier is treated as the generator of the electric energy for the purposes of this section for the duration of the contract.

''(e) CREDIT TRADING.—A renewable energy credit may be sold or exchanged by the entity to whom issued or by any other entity who acquires the credit. A renewable energy credit for any year that is not used to satisfy the minimum renewable generation requirement of subsection (a) for that year may be carried forward for use in another year.

''(f) CREDIT BORROWING.—At any time before the end of calendar year 2003, a retail electric supplier that has reason to believe that it will not have sufficient renewable energy credits to comply with subsection (a) may—

''(1) submit a plan to the Secretary demonstrating that the retail electric supplier will earn sufficient credits within the next 3 calendar years which, when taken into account, will enable the retail electric supplier to meet the requirements of subsection (a) for calendar year 2003 and the calendar year involved; and

(2) upon the approval of the plan by the Secretary, apply credits that the plan demonstrates will be earned within the next 3 calendar years to meet the requirements of subsection (a) for each calendar year involved.

''(g) ENFORCEMENT.—The Secretary may bring an action in the appropriate United States district court to impose a civil penalty on a retail electric supplier that does not comply with subsection (a). A retail electric supplier who does not submit the required number of renewable energy credits under subsection (a) is subject to a civil penalty of not more than 3 cents each for the renewable energy credits not submitted.

''(h) INFORMATION COLLECTION.—The Secretary may collect the information necessary to verify and audit—

''(1) the annual electric energy generation and renewable energy generation of any entity applying for renewable energy credits under this section,

''(2) the validity of renewable energy credits submitted by a retail electric supplier to the Secretary, and

''(3) the quantity of electricity sales of all retail electric suppliers.

''(i) ENVIRONMENTAL SAVINGS CLAUSE.—Incremental hydropower shall be subject to all applicable environmental laws and licensing and regulatory requirements.

''(j) STATE SAVINGS CLAUSE.—This section does not preclude a State from requiring additional renewable energy generation in that State.

''(k) DEFINITIONS.—For purposes of this section—

''(1) The term 'eligible facility' means—

''(A) a facility for the generation of electric energy from a renewable energy resource that is placed in service on or after January 1, 2002; or

''(B) a repowering or cofiring increment that is placed in service on or after January 1, 2002 at a facility for the generation of electric energy from a renewable energy resource that was placed in service before January 1, 2002.

An eligible facility does not have to be interconnected to the transmission or distribution system facilities of an electric utility.

''(2) The term 'generation offset' means reduced electricity usage metered at a site where a customer consumes electricity from a renewable energy technology.

''(3) The term 'incremental hydropower' means additional generation capacity achieved from increased efficiency or additions of capacity after January 1, 2002 at a hydroelectric dam that was placed in service before January 1, 2002.

''(4) The term 'Indian land' means—

''(A) any land within the limits of any Indian reservation, pueblo or rancheria,

''(B) any land not within the limits of any Indian reservation, pueblo or rancheria title to which was on the date of enactment of this paragraph either held by the United States for the benefit of any Indian tribe or individual or held by any Indian tribe or individual subject to restriction by the United States against alienation,

''(C) any dependent Indian community, and

''(D) any land conveyed to any Alaska Native corporation under the Alaska Native Claims Settlement Act.

''(5) The term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

''(6) The term 'renewable energy' means electric energy generated by a renewable energy resource.

''(7) The term 'renewable energy resource' means solar, wind, biomass, ocean, or geothermal energy, a generation offset, or incremental hydropower facility.

''(8) The term 'repowering or cofiring increment' means the additional generation from a modification that is placed in service on or after January 1, 2002 to expand electricity production at a facility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before January 1, 2002.

''(9) The term 'retail electric supplier' means a person, State agency, or Federal agency that sells electric energy to electric consumers and sold not less than 500,000,000 kilowatt-hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year.

''(10) The term 'retail electric supplier's base amount' means the total amount of electric energy sold by the retail electric supplier to electric customers during the most recent calendar year for which information is available, excluding electric energy generated by a renewable energy resource, landfill gas, or a hydroelectric facility.

''(1) SUNSET.—Subsection (a) of this section expires December 31, 2020.''.

SEC. 266. RENEWABLE ENERGY ON FEDERAL LAND.

(a) COST-SHARE DEMONSTRATION PROGRAM.—Within 12 months after the date of enactment of this section, the Secretaries of the Interior, Agriculture, and Energy shall develop guidelines for a cost-share demonstration program for the development of wind and solar energy facilities on Federal land.

(b) DEFINITION OF FEDERAL LAND.—As used in this section, the term ''Federal land'' means land owned by the United States that is subject to the operation of the mineral leasing laws; and is either—

(1) public land as defined in section 103(e) of the Federal Land Policy and Management Act of 1976 (42 U.S.C. 1702(e)), or

(2) a unit of the National Forest System as that term is used in section 11(a) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1609(a)).

(c) RIGHTS-OF-WAYS.—The demonstration program shall provide for the issuance of rights-of-way pursuant to the provisions of title V of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1761 et seq.) by the Secretary of the Interior with respect to Federal land under the jurisdiction of the Department of the Interior, and by the Secretary of Agriculture with respect to federal lands under the jurisdiction of the Department of Agriculture.

(d) AVAILABLE SITES.—For purposes of this demonstration program, the issuance of rights-of-way shall be limited to areas—

(1) of high energy potential for wind or solar development;

(2) that have been identified by the wind or solar energy industry, through a process of nomination, application, or otherwise, as being of particular interest to one or both industries;

(3) that are not located within roadless areas;

(4) where operation of wind or solar facilities would be compatible with the scenic, recreational, environmental, cultural, or historic values of the Federal land, and would not require the construction of new roads for the siting of lines or other transmission facilities; and

(5) where issuance of the right-of-way is consistent with the land and resource management plans of the relevant land management agencies.

(e) COST-SHARE PAYMENTS BY DOE.—The Secretary of Energy, in cooperation with the Secretary of the Interior with respect to Federal land under the jurisdiction of the Department of the Interior, and the Secretary of Agriculture with respect to Federal land under the jurisdiction of the Department of Agriculture, shall determine if the portion of a project on federal land is eligible for financial assistance pursuant to this section. Only those projects that are consistent with the requirements of this section and further the purposes of this section shall be eligible. In the event a project is selected for financial assistance, the Secretary of Energy shall provide no more than 15 percent of the costs of the project on the federal land, and the remainder of the costs shall be paid by non-Federal sources.

(f) REVISION OF LAND USE PLANS.—The Secretary of the Interior shall consider development of wind and solar energy, as appropriate, in revisions of land use plans under

section 202 of the Federal Land Policy and Management Act of 1976 (42 U.S.C. 1712); and the Secretary of Agriculture shall consider development of wind and solar energy, as appropriate, in revisions of land and resource management plans under section 5 of the Forest an Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1604). Nothing in this subsection shall preclude the issuance of a right-of-way for the development of a wind or solar energy project prior to the revision of a land use plan by the appropriate land management agency.

(g) REPORT TO CONGRESS.—Within 24 months after the date of enactment of this section, the Secretary of the Interior shall develop and report to Congress recommendations on any statutory or regulatory changes the Secretary believes would assist in the development of renewable energy on Federal land. The report shall include—

(1) a five-year plan developed by the Secretary of the Interior, in cooperation with the Secretary of Agriculture, for encouraging the development of wind and solar energy on Federal land in an environmentally sound manner; and

(2) an analysis of—

(A) whether the use of rights-of-ways is the best means of authorizing use of Federal land for the development of wind and solar energy, or whether such resources could be better developed through a leasing system, or other method;

(B) the desirability of grants, loans, tax credits or other provisions to promote wind and solar energy development on Federal land; and

(C) any problems, including environmental concerns, which the Secretary of the Interior or the Secretary of Agriculture have encountered in managing wind or solar energy projects on Federal land, or believe are likely to arise in relation to the development of wind or solar energy on Federal land;

(3) a list, developed in consultation with the Secretaries of Energy and Defense, of lands under the jurisdiction of the Departments of Energy and Defense that would be suitable for development for wind or solar energy, and recommended statutory and regulatory mechanisms for such development; and

(4) an analysis, developed in consultation with the Secretaries of Energy and Commerce, of the potential for development of wind, solar, and ocean energy on the Outer Continental Shelf, along with recommended statutory and regulatory mechanisms for such development.

TITLE III—HYDROELECTRIC RELICENSING

SEC. 301. ALTERNATIVE MANDATORY CONDITIONS AND FISHWAYS.

(a) ALTERNATIVE MANDATORY CONDITIONS.—Section 4 of the Federal Power Act (16 U.S.C. 797) is amended by adding at the end the following:

''(h)(1) Whenever any person applies for a license for any project works within any reservation of the United States, and the Secretary of the department under whose supervision such reservation falls deems a condition to such license to be necessary under the first proviso of subsection (e), the license applicant or any other party to the licensing proceeding may propose an alternative condition.

''(2) Notwithstanding the first proviso of subsection (e), the Secretary of the department under whose supervision the reservation falls shall accept the proposed alternative condition referred to in paragraph (1), and the Commission shall include in the license such alternative condition, if the Secretary of the appropriate department determines, based on substantial evidence provided by the party proposing such alternative condition, that the alternative condition—

''(A) provides no less protection for the reservation than provided by the condition deemed necessary by the Secretary; and

''(B) will either—

''(i) cost less to implement, or

''(ii) result in improved operation of the project works for electricity production,

as compared to the condition deemed necessary by the Secretary.

''(3) Within 1 year after the enactment of this subsection, each Secretary concerned shall, by rule, establish a process to expeditiously resolve conflicts arising under this subsection.''.

(b) ALTERNATIVE FISHWAYS.—Section 18 of the Federal Power Act (16 U.S.C. 811) is amended by—

(1) inserting ''(a)'' before the first sentence; and

(2) adding at the end the following:

''(b)(1) Whenever the Commission shall require a licensee to construct, maintain, or operate a fishway prescribed by the Secretary of the Interior or the Secretary of Commerce under this section, the licensee or any other party to the proceeding may propose an alternative to such prescription to construct, maintain, or operate a fishway.

''(2) Notwithstanding subsection (a), the Secretary of the Interior or the Secretary of Commerce, as appropriate, shall accept and prescribe, and the Commission shall require, the proposed alternative referred to in paragraph (1), if the Secretary of the appropriate department determines, based on substantial evidence provided by the party proposing such alternative, that the alternative—

''(A) will be no less effective than the fishway initially prescribed by the Secretary, and

''(B) will either—

''(i) cost less to implement, or

''(ii) result in improved operation of the project works for electricity production,

as compared to the fishway initially prescribed by the Secretary.

''(3) Within 1 year after the enactment of this subsection, the Secretary of the Interior and the Secretary of Commerce shall each, by rule, establish a process to expeditiously resolve conflicts arising under this subsection.''.

SEC. 302. CHARGES FOR TRIBAL LANDS.

Section 10(e)(1) of the Federal Power Act (16 U.S.C. 803(e)(1) is amended by inserting after the second proviso the following: ''*Provided further,* that the Commission shall not issue a new or original license for projects involving tribal lands embraced within Indian reservations until annual charges required under this section have been fixed.''

SEC. 303. DISPOSITION OF HYDROELECTRIC CHARGES.

Section 17 of the Federal Power Act (16 U.S.C. 810) is amended by striking ''to be expended under the direction of the Secretary of the Army in the maintenance and operation of dams and other navigation structures owned by the United States or in the construction, maintenance, or operation of headwater or other improvements of navigable waters of the United States.'' and inserting the following: ''to be expended in the following manner on an annual basis: (A) fifty-percent of the funds shall be expended by the Secretary of the Interior pursuant to a grant program to be established by the Secretary to support collaborative watershed restoration and education activities intended to promote the recovery of candidate, threatened, and endangered species under the Endangered Species Act of 1973; and (B) fifty-percent of the funds shall be expended by the Secretary of Agriculture, acting through the Chief of the Forest Service, for the Youth Conservation Corps program.''.

SEC. 304. ANNUAL LICENSES.

Section 15(a) of the Federal Power Act (16 U.S.C. 808(a)) is amended by adding at the end the following:

''(4) Prior to issuing a fourth and subsequent annual license under paragraph (1), the Commission shall first consult with the Secretary of the Interior and the Secretary of Commerce, and if the project is within any reservation, with the Secretary under whose supervision such reservation falls.

''(5) Prior to issuing a fourth and subsequent annual license under paragraph (1), the Commission shall publish a written statement setting forth the reasons why the annual license is needed, and describing the results of consultation with the Secretary of the Interior, the Secretary of Commerce, and the Secretary under whose supervision the reservation falls. Such explanation shall also contain the best judgment of the Commission as to whether the Commission anticipates issuing an additional annual license.

''(6) At least 60 days prior to expiration of the seventh and subsequent annual licenses issued under paragraph (1), the Commission shall submit to Congress the written statement required in paragraph (5).''.

SEC. 305. ENFORCEMENT.

(a) MONITORING AND INVESTIGATIONS OF MANDATORY CONDITIONS AND FISHWAY PRESCRIPTIONS.—The first sentence of section 31(a) of the Federal Power Act (16 U.S.C. 823b(a)) is amended to read as follows:

''The Commission shall monitor and investigate compliance with each license and permit issued under this part, each condition imposed under section 4(e) or 4(h), each fishway prescription imposed under section 18, and each exemption granted from any requirement of this part.''

(b) COMPLIANCE ORDERS.—The third sentence of section 31(a) of the Federal Power Act (16 U.S.C. 823(a)) is amended to read as follows:

''After notice and opportunity for public hearing, the Commission may issue such orders as necessary to require compliance with the terms and conditions of licenses and permits issued under this part, with conditions imposed under section 4(e) or 4(h), with fishway prescriptions imposed under section 18, and with the terms and conditions of exemptions granted from any requirement of this part.''

SEC. 306. ESTABLISHMENT OF HYDROELECTRIC RELICENSING PROCEDURES.

(a) JOINT PROCEDURES OF THE COMMISSION AND RESOURCE AGENCIES.—

(1) Within 18 months after the date of enactment of this section, the Commission, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture, shall, after consultation with the interested states and public review and comment, issue coordinated regulations governing the issuance of a license under section 15 of the Federal Power Act (16 U.S.C. 808).

(2) Such regulations shall provide for—

(A) the participation of the Commission in the pre-application environmental scoping process conducted by the resource agencies pursuant to section 15(b) of the Federal Power Act (16 U.S.C. 808(b)), sufficient to allow the Commission and the resource agencies to coordinate environmental reviews and other regulatory procedures of the Commission and the resource agencies under Part I of the Federal Power Act, and under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(B) issuance by the resource agencies of draft and final mandatory conditions under section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), and draft and final fishway

prescriptions under section 18 of the Federal Power Act (16 U.S.C. 811);

(C) to the maximum extent possible, identification by the Commission staff in the draft analysis of the license application conducted under the National Environmental Policy Act, of all license articles and license conditions the Commission is likely to include in the license;

(D) coordination by the Commission and the resource agencies of analysis under the National Environmental Policy Act for final license articles and conditions recommended by Commission staff, and the final mandatory conditions and fishway prescriptions of the resource agencies;

(E) procedures for ensuring coordination and sharing, to the maximum extent possible, of information, studies, data and analysis by the Commission and the resource agencies to reduce the need for duplicative studies and analysis by license applicants and other parties to the license proceeding; and

(F) procedures for ensuring resolution at an early stage of the process of the scope and type of reasonable and necessary information, studies, data, and analysis to be provided by the license applicant.

(b) PROCEDURES OF THE COMMISSION.—Within 18 months after the date of enactment of this section, the Commission shall, after consultation with the interested federal agencies and states and after public comment and review, issue additional regulations governing the issuance of a license under section 15 of the Federal Power Act (16 U.S.C. 808). Such regulations shall—

(1) set a schedule for the Commission to issue—

(A) a tendering notice indicating that an application has been filed with the Commission;

(B) advanced notice to resource agencies of the issuance of the Ready for Environmental Analysis Notice requesting submission of recommendations, conditions, prescriptions, and comments;

(C) a license decision after completion of environmental assessments or environmental impact statements prepared pursuant to the National Environmental Policy Act; and

(D) responses to petitions, motions, complaints and requests for rehearing;

(2) set deadlines for an applicant to conduct all needed resource studies in support of its license application;

(3) ensure a coordinated schedule for all major actions by the applicant, the Commission, affected Federal and State agencies, Indian Tribes and other parties, through final decision on the application; and

(4) provide for the adjustment of schedules if unavoidable delays occur.

SEC. 307. RELICENSING STUDY.

(a) IN GENERAL.—The Federal Energy Regulatory Commission shall, jointly with the Secretary of Commerce, the Secretary of the Interior, and the Secretary of Agriculture, conduct a study of all new licenses issued for existing projects under section 15 of the Federal Power Act (16 U.S.C. 808) since January 1, 1994.

(b) SCOPE.—The study shall analyze:

(1) the length of time the Commission has taken to issue each new license for an existing project;

(2) the additional cost to the licensee attributable to new license conditions;

(3) the change in generating capacity attributable to new license conditions;

(4) the environmental benefits achieved by new license conditions;

(5) significant unmitigated environmental damage of the project and costs to mitigate such damage; and

(6) litigation arising from the issuance or failure to issue new licenses for existing projects under section 15 of the Federal Power Act or the imposition or failure to impose new license conditions.

(c) DEFINITION.—As used in this section, the term ''new license condition'' means any condition imposed under—

(1) section 4(e) of the Federal Power Act (16 U.S.C. 797(e)),

(2) section 10(a) of the Federal Power Act (16 U.S.C. 803(a)),

(2) section 10(e) of the Federal Power Act (16 U.S.C. 803(e)),

(3) section 10(j) of the Federal Power Act (16 U.S.C. 803(j)),

(4) section 18 of the Federal Power Act (16 U.S.C. 811), or

(5) section 401(d) of the Clean Water Act (33 U.S.C. 1341(d)).

(d) CONSULTATION.—The Commission shall give interested persons and licensees an opportunity to submit information and views in writing.

(e) REPORT.—The Commission shall report its findings to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Energy and Commerce of the House of Representatives not later than 24 months after the date of enactment of this section.

SEC. 308. DATA COLLECTION PROCEDURES.

Within 24 months after the date of enactment of this section, the Federal Energy Regulatory Commission, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture shall jointly develop procedures for ensuring complete and accurate information concerning the time and cost to parties in the hydroelectric licensing process under part I of the Federal Power Act (16 U.S.C. 791 et seq.). Such data shall be published regularly, but no less frequently than every three years.

TITLE IV—INDIAN ENERGY

SEC. 401. COMPREHENSIVE INDIAN ENERGY PROGRAM.

Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501–3506) is amended by adding after section 2606 the following:

''SEC. 2607. COMPREHENSIVE INDIAN ENERGY PROGRAM.

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

''(1) the term 'Director' means the Director of the Office of Indian Energy Policy and Programs established by section 217 of the Department of Energy Organization Act, and

''(2) the term 'Indian land' means—

''(A) any land within the limits of an Indian reservation, pueblo, or rancheria;

''(B) any land not within the limits of an Indian reservation, pueblo, or rancheria whose title on the date of enactment of this section was held—

''(i) in trust by the United States for the benefit of an Indian tribe,

''(ii) by an Indian tribe subject to restriction by the United States against alienation, or

''(iii) by a dependent Indian community; and

''(C) land conveyed to an Alaska Native Corporation under the Alaska Native Claims Settlement Act.

''(b) INDIAN ENERGY EDUCATION PLANNING AND MANAGEMENT ASSISTANCE.—

''(1) The Director shall establish programs within the Office of Indian Energy Policy and Programs to assist Indian tribes in meeting their energy education, research and development, planning, and management needs.

''(2) The Director may make grants, on a competitive basis, to an Indian tribe for—

''(A) renewable energy, energy efficiency, and conservation programs;

''(B) studies and other activities supporting tribal acquisition of energy supplies, services, and facilities;

''(C) planning, constructing, developing, operating, maintaining, and improving tribal electrical generation, transmission, and distribution facilities; and

''(D) developing, constructing, and interconnecting electric power transmission facilities with transmission facilities owned and operated by a Federal power marketing agency or an electric utility that provides open access transmission service.

''(3) The Director may develop, in consultation with Indian tribes, a formula for making grants under this section. The formula may take into account the following—

''(A) the total number of acres of Indian land owned by an Indian tribe;

''(B) the total number of households on the Indian tribe's Indian land;

''(C) the total number of households on the Indian tribe's Indian land that have no electricity service or are under-served; and

''(D) financial or other assets available to the Indian tribe from any source.

''(4) In making a grant under paragraph (2), the Director shall give priority to an application received from an Indian tribe that is not served or is served inadequately by an electric utility, as that term is defined in section 3(4) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602(4)), or by a person, State agency, or any other non-federal entity that owns or operates a local distribution facility used for the sale of electric energy to an electric consumer.

''(5) There are authorized to be appropriated to the Department of Energy such sums as may be necessary to carry out the purposes of this section.

''(6) The Secretary is authorized to promulgate such regulations as the Secretary determines to be necessary to carry out the provisions of this subsection.

''(c) LOAN GUARANTEE PROGRAM.—

''(1) AUTHORITY.—The Secretary may guarantee not more than 90 percent of the unpaid principal and interest due on any loan made to any Indian tribe for energy development, including the planning, development, construction, and maintenance of electrical generation plants, and for transmission and delivery mechanisms for electricity produced on Indian land. A loan guaranteed under this subsection shall be made by—

''(A) a financial institution subject to the examination of the Secretary; or

''(B) an Indian tribe, from funds of the Indian tribe, to another Indian tribe.

''(2) AVAILABILITY OF APPROPRIATIONS.—Amounts appropriated to cover the cost of loan guarantees shall be available without fiscal year limitation to the Secretary to fulfill obligations arising under this subsection.

''(3) AUTHORIZATION OF APPROPRIATIONS.—

''(A) There are authorized to be appropriated to the Secretary such sums as may be necessary to cover the cost of loan guarantees, as defined by section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)).

''(B) There are authorized to be appropriated to the Secretary such sums as may be necessary to cover the administrative expenses related to carrying out the loan guarantee program established by this subsection.

''(4) LIMITATION ON AMOUNT.—The aggregate outstanding amount guaranteed by the Secretary of Energy at any one time under this subsection shall not exceed $2,000,000,000.

''(5) REGULATIONS.—The Secretary is authorized to promulgate such regulations as the Secretary determines to be necessary to carry out the provisions of this subsection.

''(d) INDIAN ENERGY PREFERENCE.—(1) An agency or department of the United States Government may give, in the purchase of electricity, oil, gas, coal, or other energy product or by-product, preference in such purchase to an energy and resource production enterprise, partnership, corporation, or other type of business organization majority or wholly owned and controlled by a tribal government.

''(2) In implementing this subsection, an agency or department shall pay no more than the prevailing market price for the energy product or by-product and shall obtain no less than existing market terms and conditions.

''(e) EFFECT ON OTHER LAWS.—This section does not—

''(1) limit the discretion vested in an Administrator of a Federal power marketing agency to market and allocate Federal power, or

''(2) alter Federal laws under which a Federal power marketing agency markets, allocates, or purchases power.''.

SEC. 402. OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS.

Title II of the Department of Energy Organization Act is amended by adding at the end the following:

''OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

''SEC. 217. (a) There is established within the Department an Office of Indian Energy Policy and Programs. This Office shall be headed by a Director, who shall be appointed by the Secretary and compensated at the rate equal to that of level IV of the Executive Schedule under section 5315 of Title 5, United States Code.

''(b) The Director shall provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs of the Department that—

''(1) promote tribal energy efficiency and utilization;

''(2) modernize and develop, for the benefit of Indian tribes, tribal energy and economic infrastructure related to natural resource development and electrification;

''(3) preserve and promote tribal sovereignty and self determination related to energy matters and energy deregulation;

''(4) lower or stabilize energy costs; and

''(5) electrify tribal members' homes and tribal lands.

''(c) The Director shall carry out the duties assigned the Secretary or the Director under title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.).''.

SEC. 403. CONFORMING AMENDMENTS.

(a) AUTHORIZATION OF APPROPRIATIONS.—Section 2603(c) of the Energy Policy Act of 1992 (25 U.S.C. 3503(c)) is amended to read as follows:

''(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this section.''.

(b) TABLE OF CONTENTS.—The table of contents of the Department of Energy Act is amended by inserting after the item relating to section 216 the following new item:

''Sec. 217. Office of Indian Energy Policy and Programs.''.

(c) EXECUTIVE SCHEDULE.—Section 5315 of title 5, United States Code, is amended by inserting ''Director, Office of Indian Energy Policy and Programs, Department of Energy.'' after ''Inspector General, Department of Energy.''.

SEC. 404. SITING ENERGY FACILITIES ON TRIBAL LANDS.

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

(1) INDIAN TRIBE.—The term ''Indian tribe'' means any Indian tribe, band, nation, or other organized group or community, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians, except that such term does not include any Regional Corporation as defined in section 3(g) of the Alaska Native Claims Settlement Act (43 U.S.C. 1602(g)).

(2) INTERESTED PARTY.—The term ''interested party'' means a person whose interests could be adversely affected by the decision of an Indian tribe to grant a lease or right-of-way pursuant to this section.

(3) PETITION.—The term ''petition'' means a written request submitted to the Secretary for the review of an action (or inaction) of the Indian tribe that is claimed to be in violation of the approved tribal regulations;

(4) RESERVATION.—The term ''reservation'' means—

(A) with respect to a reservation in a State other than Oklahoma, all land that has been set aside or that has been acknowledged as having been set aside by the United States for the use of an Indian tribe, the exterior boundaries of which are more particularly defined in a final tribal treaty, agreement, executive order, federal statute, secretarial order, or judicial determination;

(B) with respect to a reservation in the State of Oklahoma, all land that is—

(i) within the jurisdictional area of an Indian tribe, and

(ii) within the boundaries of the last reservation of such tribe that was established by treaty, executive order, or secretarial order.

(5) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

(6) TRIBAL LANDS.—The term ''tribal lands'' means any tribal trust lands or other lands owned by an Indian tribe that are within a reservation, or tribal trust lands located contiguous thereto.

(b) LEASES INVOLVING GENERATION, TRANSMISSION, DISTRIBUTION OR ENERGY PROCESSING FACILITIES.—An Indian tribe may grant a lease of tribal land for electric generation, transmission, or distribution facilities, or facilities to process or refine renewable or nonrenewable energy resources developed on tribal lands, and such leases shall not require the approval of the Secretary if the lease is executed under tribal regulations approved by the Secretary under this subsection and the term of the lease does not exceed 30 years.

(c) RIGHTS-OF-WAY FOR ELECTRIC GENERATION, TRANSMISSION, DISTRIBUTION OR ENERGY PROCESSING FACILITIES.—An Indian tribe may grant a right-of-way over tribal lands for a pipeline or an electric transmission or distribution line without separate approval by the Secretary, if—

(1) the right-of-way is executed under and complies with tribal regulations approved by the Secretary and the term of the right-of-way does not exceed 30 years; and

(2) the pipeline or electric transmission or distribution line serves—

(A) an electric generation, transmission or distribution facility located on tribal land; or

(B) a facility located on tribal land that processes or refines renewable or nonrenewable energy resources developed on tribal lands.

(d) RENEWALS.—Leases or rights-of-way entered into under this subsection may be renewed at the discretion of the Indian tribe in accordance with the requirements of this section.

(e) TRIBAL REGULATION REQUIREMENTS.—

(1) The Secretary shall have the authority to approve or disapprove tribal regulations required under this subsection. The Secretary shall approve such tribal regulations if they are comprehensive in nature, including provisions that address—

(A) securing necessary information from the lessee or right-of-way applicant;

(B) term of the conveyance;

(C) amendments and renewals;

(D) consideration for the lease or right-of-way;

(E) technical or other relevant requirements;

(F) requirements for environmental review as set forth in paragraph (3);

(G) requirements for complying with all applicable environmental laws; and

(H) final approval authority.

(2) No lease or right-of-way shall be valid unless authorized in compliance with the approved tribal regulations.

(3) An Indian tribe, as a condition of securing Secretarial approval as contemplated in paragraph (1), must establish an environmental review process that includes the following—

(A) an identification and evaluation of all significant environmental impacts of the proposed action as compared to a no action alternative;

(B) identification of proposed mitigation;

(C) a process for ensuring that the public is informed of and has an opportunity to comment on the proposed action prior to tribal approval of the lease or right-of-way; and

(D) sufficient administrative support and technical capability to carry out the environmental review process.

(4) The Secretary shall review and approve or disapprove the regulations of the Indian tribe within 180 days of the submission of such regulations to the Secretary. Any disapproval of such regulations by the Secretary shall be accompanied by written documentation that sets forth the basis for the disapproval. The 180-day period may be extended by the Secretary after consultation with the Indian tribe.

(5) If the Indian tribe executes a lease or right-of-way pursuant to tribal regulations required under this subsection, the Indian tribe shall provide the Secretary with—

(A) a copy of the lease or right-of-way document and all amendments and renewals thereto; and

(B) in the case of regulations or a lease or right-of-way that permits payment to be made directly to the Indian tribe, documentation of the payments sufficient to enable the Secretary to discharge the trust responsibility of the United States as appropriate under existing law.

(6) The United States shall not be liable for losses sustained by any party to a lease executed pursuant to tribal regulations under this subsection, including the Indian tribe.

(7)(A) An interested party may, after exhaustion of tribal remedies, submit, in a timely manner, a petition to the Secretary to review the compliance of the Indian tribe with any tribal regulations approved under this subsection. If upon such review, the Secretary determines that the regulations were violated, the Secretary may take such action as may be necessary to remedy the violation, including rescinding or holding the lease or right-of-way in abeyance until the violation is cured. The Secretary may also rescind the approval of the tribal regulations and reassume the responsibility for approval of leases or rights-of-way associated with the facilities addressed in this section.

(B) If the Secretary seeks to remedy a violation described in subparagraph (A), the Secretary shall—

(i) make a written determination with respect to the regulations that have been violated;

(ii) provide the Indian tribe with a written notice of the alleged violation together with such written determination; and

(iii) prior to the exercise of any remedy or the rescission of the approval of the regulations involved and reassumption of the lease or right-of-way approval responsibility, provide the Indian tribe with a hearing and a reasonable opportunity to cure the alleged violation.

(C) The tribe shall retain all rights to appeal as provided by regulations promulgated by the Secretary.

(f) AGREEMENTS.—

(1) Agreements between an Indian tribe and a business entity that are directly associated with the development of electric generation, transmission or distribution facilities, or facilities to process or refine renewable or nonrenewable energy resources developed on tribal lands, shall not separately require the approval of the Secretary pursuant to section 18 of title 25, United States Code, so long as the activity that is the subject of the agreement has been the subject of an environmental review process pursuant to subsection (e) of this section.

(2) The United States shall not be liable for any losses or damages sustained by any party, including the Indian tribe, that are associated with an agreement entered into under this subsection.

(g) DISCLAIMER.—Nothing in this section is intended to modify or otherwise affect the applicability of any provision of the Indian Mineral Leasing Act of 1938 (25 U.S.C. 396a–396g); Indian Mineral Development Act of 1982 (25 U.S.C. 2101–2108); Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201–1328); any amendments thereto; or any other laws not specifically addressed in this section.

SEC. 405. INDIAN MINERAL DEVELOPMENT ACT REVIEW.

(a) IN GENERAL.—The Secretary of the Interior shall conduct a review of the activities that have been conducted by the governments of Indian tribes under the authority of the Indian Mineral Development Act of 1982 (25 U.S.C. 2101 et seq.).

(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Secretary shall transmit to the Committee on Resources of the House of Representatives and the Committee on Indian Affairs and the Committee on Energy and Natural Resources of the Senate a report containing—

(1) the results of the review;

(2) recommendations designed to help ensure that Indian tribes have the opportunity to develop their nonrenewable energy resources; and

(3) an analysis of the barriers to the development of energy resources on Indian land, including federal policies and regulations, and make recommendations regarding the removal of those barriers.

(c) CONSULTATION.—The Secretary shall consult with Indian tribes on a government-to-government basis in developing the report and recommendations as provided in this subsection.

SEC. 406. RENEWABLE ENERGY STUDY.

(a) IN GENERAL.—Not later than 2 years after the date of the enactment of this Act, and once every 2 years thereafter, the Secretary of Energy shall transmit to the Committees on Energy and Commerce and Resources of the House of Representatives and the Committees on Energy and Natural Resources and Indian Affairs of the Senate a report on energy consumption and renewable energy development potential on Indian land. The report shall identify barriers to the development of renewable energy by Indian tribes, including federal policies and regulations, and make recommendations regarding the removal of such barriers.

(b) CONSULTATION.—The Secretary shall consult with Indian tribes on a government-to-government basis in developing the report and recommendations as provided in this section.

SEC. 407. FEDERAL POWER MARKETING ADMINISTRATIONS.

Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501) (as amended by section 201) is amended by adding the at the end of the following:

"SEC. 2608. FEDERAL POWER MARKETING ADMINISTRATIONS.

''(a) DEFINITION OF ADMINISTRATOR.—In this section, the term 'Administrator' means—

''(1) the Administrator of the Bonneville Power Administration; or

''(2) the Administrator of the Western Area Power Administration.

''(b) ASSISTANCE FOR TRANSMISSION STUDIES.—

''(1) Each Administrator may provide technical assistance to Indian tribes seeking to use the high-voltage transmission system for delivery of electric power. The costs of such technical assistance shall be funded—

''(A) by the Administrator using non-reimbursable funds appropriated for this purpose, or

''(B) by the Indian tribe.

''(2) PRIORITY FOR ASSISTANCE FOR TRANSMISSION STUDIES.—In providing discretionary assistance to Indian tribes under paragraph (1), each Administrator shall give priority in funding to Indian tribes that have limited financial capability to conduct such studies.

''(c) POWER ALLOCATION STUDY.—

''(1) Not later than 2 years after the date of enactment of this Act, the Secretary of Energy shall transmit to the Committees on Energy and Commerce and Resources of the House of Representatives and the Committees on Energy and Natural Resources and Indian Affairs of the Senate a report on Indian tribes' utilization of federal power allocations of the Western Area Power Administration, or power sold by the Southwestern Power Administration, and the Bonneville Power Administration to or for the benefit of Indian tribes in their service areas. The report shall identify—

''(A) the amount of power allocated to tribes by the Western Area Power Administration, and how the benefit of that power is utilized by the tribes;

''(B) the amount of power sold to tribes by other Power Marketing Administrations; and

''(C) existing barriers that impede tribal access to and utilization of federal power, and opportunities to remove such barriers and improve the ability of the Power Marketing Administration to facilitate the utilization of federal power by Indian tribes.

''(2) The Power Marketing Administrations shall consult with Indian tribes on a government-to-government basis in developing the report provided in this section.

''(d) AUTHORIZATION FOR APPROPRIATION.—There are authorized to be appropriated to the Secretary of Energy such sums as may be necessary to carry out the purposes of this section.''.

SEC. 408. FEASIBILITY STUDY OF COMBINED WIND AND HYDROPOWER DEMONSTRATION PROJECT.

(a) STUDY.—The Secretary of Energy, in coordination with the Secretary of the Army and the Secretary of the Interior, shall conduct a study of the cost and feasibility of developing a demonstration project that would use wind energy generated by Indian tribes and hydropower generated by the Army Corps of Engineers on the Missouri River to supply firming power to the Western Area Power Administration.

(b) SCOPE OF STUDY.—The study shall—

(1) determine the feasibility of the blending of wind energy and hydropower generated from the Missouri River dams operated by the Army Corps of Engineers;

(2) review historical purchase requirements and projected purchase requirements for firming and the patterns of availability and use of firming energy;

(3) assess the wind energy resource potential on tribal lands and projected cost savings through a blend of wind and hydropower over a thirty-year period;

(4) include a preliminary interconnection study and a determination of resource adequacy of the Upper Great Plains Region of the Western Area Power Administration;

(5) determine seasonal capacity needs and associated transmission upgrades for integration of tribal wind generation; and

(6) include an independent tribal engineer as a study team member.

(c) REPORT.—The Secretary of Energy and Secretary of the Army shall submit a report to Congress not later than one year after the date of enactment of this title. The Secretaries shall include in the report—

(1) an analysis of the potential energy cost savings to the customers of the Western Area Power Administration through the blend of wind and hydropower;

(2) an evaluation of whether a combined wind and hydropower system can reduce reservoir fluctuation, enhance efficient and reliable energy production and provide Missouri River management flexibility;

(3) recommendations for a demonstration project which the Western Area Power Administration could carry out in partnership with an Indian tribal government or tribal government energy consortium to demonstrate the feasibility and potential of using wind energy produced on Indian lands to supply firming energy to the Western Area Power Administration or other Federal power marketing agency; and

(4) an identification of the economic and environmental benefits to be realized through such a federal-tribal partnership and identification of how such a partnership could contribute to the energy security of the United States.

(d) CONSULTATION.—The Secretary shall consult with Indian tribes on a government-to-government basis in developing the report and recommendations provided in this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $500,000 to carry out this section, which shall remain available until expended. All costs incurred by the Western Area Power Administration associated with performing the tasks required under this section shall be non-reimbursable.

TITLE V—NUCLEAR POWER

Subtitle A—Price-Anderson Act Reauthorization

SEC. 501. SHORT TITLE.

This subtitle may be cited as the ''Price-Anderson Amendments Act of 2002''.

SEC. 502. EXTENSION OF DEPARTMENT OF ENERGY INDEMNIFICATION AUTHORITY.

Section 170 d.(1)(A) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking '', until August 1, 2002,''.

SEC. 503. DEPARTMENT OF ENERGY LIABILITY LIMIT.

(a) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting the following:

''(2) In agreements of indemnification entered into under paragraph (1), the Secretary—

''(A) may require the contractor to provide and maintain financial protection of such a

type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity, and

''(B) shall indemnify the persons indemnified against such claims above the amount of the financial protection required, in the amount of $10,000,000,000 (subject to adjustment for inflation under subsection t.), in the aggregate, for all persons indemnified in connection with such contract and for each nuclear incident, including such legal costs of the contractor as are approved by the Secretary.''.

(b) CONTRACT AMENDMENTS.—Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further amended by striking paragraph (3) and inserting the following:

''(3) All agreements of indemnification under which the Department of Energy (or its predecessor agencies) may be required to indemnify any person under this section shall be deemed to be amended, on the date of the enactment of the Price-Anderson Amendments Act of 2002, to reflect the amount of indemnity for public liability and any applicable financial protection required of the contractor under this subsection.''.

(c) LIABILITY LIMIT.—Section 170 e.(1)(B) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(1)(B)) is amended by striking ''paragraph (3)'' and inserting ''paragraph (2)(B)''.

SEC. 504. INCIDENTS OUTSIDE THE UNITED STATES.

(a) AMOUNT OF INDEMNIFICATION.—Section 170 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(5)) is amended by striking ''$100,000,000'' and inserting ''$500,000,000''.

(b) LIABILITY LIMIT.—Section 170 e.(4) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4) is amended by striking ''$100,000,000'' and inserting ''$500,000,000''.

SEC. 505. REPORTS.

Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking ''August 1, 1998'' and inserting ''August 1, 2008''.

SEC. 506. INFLATION ADJUSTMENT.

Section 170 t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210 (t)) is amended—

(1) by renumbering paragraph (2) as paragraph (3); and

(2) by adding after paragraph (1) the following:

''(2) The Secretary shall adjust the amount of indemnification provided under an agreement of indemnification under subsection d. not less than once during each 5-year period following July 1, 2002, in accordance with the aggregate percentage change in the Consumer Price Index since—

''(A) such date of enactment, in the case of the first adjustment under this paragraph; or

''(B) the previous adjustment under this paragraph.''.

SEC. 507. CIVIL PENALTIES.

(a) REPEAL OF AUTOMATIC REMISSION.—Section 234A b.(2) of the Atomic Energy of 1954 (42 U.S.C. 2282a (b)(2)) is amended by striking the last sentence.

(b) LIMITATION FOR NOT-FOR-PROFIT INSTITUTIONS.—Subsection d. of section 234A of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:

''d. (1) Notwithstanding subsection a., a civil penalty for a violation under subsection a. shall not exceed the amount of the fee paid under the contract under which such violation occurs for any not-for-profit contractor, subcontractor, or supplier.

''(2) For purposes of this section, the term 'not-for-profit' means that no part of the net earnings of the contractor, subcontractor, or supplier inures, or may lawfully inure, to the benefit of any natural person or for-profit artificial person.''.

(c) EFFECTIVE DATE.—The amendments made by this section shall not apply to any violation of the Atomic Energy Act of 1954 occurring under a contract entered into before the date of enactment of this section.

SEC. 508. EFFECTIVE DATE.

The amendments made by sections 503(a) and 504 shall not apply to any nuclear incident that occurs before the date of the enactment of this subtitle.

Subtitle B—Miscellaneous Provisions

SEC. 511. URANIUM SALES.

(a) INVENTORY SALES.—Section 3112(d) of the USEC Privatization Act (42 U.S.C. 2297h–10(d)) is amended to read as follows:

''(d) INVENTORY SALES.—(1) In addition to the transfers authorized under subsections (b), (c), and (e), the Secretary may, from time to time, sell or transfer uranium (including natural uranium concentrates, natural uranium hexafluoride, enriched uranium, and depleted uranium) from the Department of Energy's stockpile.

''(2) Except as provided in subsections (b), (c), and (e), the Secretary may not deliver uranium in any form for consumption by end users in any year in excess of the following amounts:

''Annual Maximum Deliveries to End Users

	Million lbs. U_3O_8 equivalent
''Year:	
2003 through 2009	3
2010	5
2011	5
2012	7
2013 and each year thereafter	10.

''(3) Except as provided in subsections (b), (c), and (e), no sale or transfer of uranium in any form shall be made unless—

''(A) the President determines that the material is not necessary for national security needs;

''(B) the Secretary determines, based on the written views of the Secretary of State and the Assistant to the President for National Security Affairs, that the sale or transfer will not adversely affect the national security interests of the United States;

''(C) the Secretary determines that the sale of the material will not have an adverse material impact on the domestic uranium mining, conversion, or enrichment industry, taking into account the sales of uranium under the Russian HEU Agreement and the Suspension Agreement; and

''(D) the price paid to the Secretary will not be less than the fair market value of the material.''.

(b) EXEMPT TRANSFERS AND SALES.—Section 3112(e) of the USEC Privatization Act (42 U.S.C. 2297h–10(e)) is amended to read as follows:

''(e) EXEMPT SALES OR TRANSFERS.—Notwithstanding subsection (d)(2), the Secretary may transfer or sell uranium—

''(1) to the Tennessee Valley Authority for use pursuant to the Department of Energy's highly enriched uranium or tritium program, to the extent provided by law;

''(2) to research and test reactors under the University Reactor Fuel Assistance and Support Program or the Reduced Enrichment for Research and Test Reactors Program;

''(3) to USEC Inc. to replace contaminated uranium received from the Department of Energy when the United States Enrichment Corporation was privatized;

''(4) to any person for emergency purposes in the event of a disruption in supply to end users in the United States; and

''(5) to any person for national security purposes, as determined by the Secretary.''.

SEC. 512. REAUTHORIZATION OF THORIUM REIMBURSEMENT.

(a) REIMBURSEMENT OF THORIUM LICENSEES.—Section 1001(b)(2)(C) of the Energy Policy Act of 1992 (42 U.S.C. 2296a) is amended—

(1) by striking ''$140,000,000'' and inserting ''$365,000,000''; and

(2) by adding at the end the following: ''Such payments shall not exceed the following amounts:

''(i) $90,000,000 in fiscal year 2002.

''(ii) $55,000,000 in fiscal year 2003.

''(iii) $20,000,000 in fiscal year 2004.

''(iv) $20,000,000 in fiscal year 2005.

''(v) $20,000,000 in fiscal year 2006.

''(vi) $20,000,000 in fiscal year 2007.

Any amounts authorized to be paid in a fiscal year under this subparagraph that are not paid in that fiscal year may be paid in subsequent fiscal years.''.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 1003(a) of the Energy Policy Act of 1992 (42 U.S.C. 2296a–2) is amended by striking ''$490,000,000'' and inserting ''$715,000,000''.

(c) DECONTAMINATION AND DECOMMISSIONING FUND.—Section 1802(a) of the Atomic Energy Act of 1954 (42 U.S.C. 2297g–1(a)) is amended—

(1) by striking ''$488,333,333'' and inserting ''$518,233,333''; and

(2) by inserting after ''inflation'' the following: ''beginning on the date of enactment of the Energy Policy Act of 1992''.

SEC. 513. FAST FLUX TEST FACILITY.

The Secretary of Energy shall not reactivate the Fast Flux Test Facility to conduct—

(1) any atomic energy defense activity,

(2) any space-related mission, or

(3) any program for the production or utilization of nuclear material if the Secretary has determined, in a record of decision, that the program can be carried out at existing operating facilities.

DIVISION—DOMESTIC OIL AND GAS PRODUCTION AND TRANSPORTATION

TITLE VI—OIL AND GAS PRODUCTION

SEC. 601. PERMANENT AUTHORITY TO OPERATE THE STRATEGIC PETROLEUM RESERVE.

(a) AMENDMENT TO TITLE I OF THE ENERGY POLICY AND CONSERVATION ACT.—Title I of the Energy Policy and Conservation Act (42 U.S.C. 6211 et seq.) is amended—

(1) by striking section 166 (42 U.S.C. 6246) and inserting—

''SEC. 166. There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this part, to remain available until expended.''; and

(2) by striking part E (42 U.S.C. 6251; relating to the expiration of title I of the Act) and its heading.

(b) AMENDMENT TO TITLE II OF THE ENERGY POLICY AND CONSERVATION ACT.—Title II of the Energy Policy and Conservation Act (42 U.S.C. 6271 et seq.) is amended—

(1) by striking section 256(h) (42 U.S.C. 6276(h)) and inserting—

''(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this part, to remain available until expended.''.

(2) by striking section 273(e) (42 U.S.C. 6283(e); relating to the expiration of summer fill and fuel budgeting programs); and

(3) by striking part D (42 U.S.C. 6285; relating to the expiration of title II of the Act) and its heading.

(c) TECHNICAL AMENDMENTS.—The table of contents for the Energy Policy and Conservation Act is amended by striking the items relating to part D of title I and part D of title II.

SEC. 602. FEDERAL ONSHORE LEASING PROGRAMS FOR OIL AND GAS.

(a) TIMELY ACTION ON LEASES AND PERMITS.—To ensure timely action on oil and gas leases and applications for permits to drill on lands otherwise available for leasing, the Secretary of the Interior shall—

(1) ensure expeditious compliance with the requirements section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C));

(2) improve consultation and coordination with the States;

(3) improve the collection, storage, and retrieval of information related to such leasing activities; and

(4) improve inspection and enforcement activities related to oil and gas leases.

(b) AUTHORIZATION OF APPROPRIATIONS.—For the purpose of carrying out paragraphs (1) through (4) of subsection (a), there are authorized to be appropriated to the Secretary of the Interior $60,000,000 for each of the fiscal years 2003 through 2006, in addition to amounts otherwise authorized to be appropriated for the purpose of carrying out section 17 of the Mineral Leasing Act (30 U.S.C. 226).

SEC. 603. OIL AND GAS LEASE ACREAGE LIMITATIONS.

Section 27(d)(1) of the Mineral Leasing Act (30 U.S.C. 184(d)(1)) is amended by inserting after ''acreage held in special tar sand areas'' the following: ''as well as acreage under any lease any portion of which has been committed to a Federally approved unit or cooperative plan or communitization agreement, or for which royalty, including compensatory royalty or royalty in kind, was paid in the preceding calendar year,''.

SEC. 604. ORPHANED AND ABANDONED WELLS ON FEDERAL LAND.

(a) ESTABLISHMENT.—(1) The Secretary of the Interior, in cooperation with the Secretary of Agriculture, shall establish a program to ensure within three years after the date of enactment of this Act, remediation, reclamation, and closure of orphaned oil and gas wells located on lands administered by the land management agencies within the Department of the Interior and the U.S. Forest Service that are—

(A) abandoned;

(B) orphaned; or

(C) idled for more than 5 years and having no beneficial use.

(2) The program shall include a means of ranking critical sites for priority in remediation based on potential environmental harm, other land use priorities, and public health and safety.

(3) The program shall provide that responsible parties be identified wherever possible and that the costs of remediation be recovered.

(4) In carrying out the program, the Secretary of the Interior shall work cooperatively with the Secretary of Agriculture and the states within which the federal lands are located, and shall consult with the Secretary of Energy, and the Interstate Oil and Gas Compact Commission.

(b) PLAN.—Within six months from the date of enactment of this section, the Secretary of the Interior, in cooperation with the Secretary of Agriculture, shall prepare a plan for carrying out the program established under subsection (a). Copies of the plan shall be transmitted to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of the Interior $5,000,000 for each of fiscal years 2003 through 2005 to carry out the activities provided for in this section.

SEC. 605. ORPHANED AND ABANDONED OIL AND GAS WELL PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy shall establish a program to provide technical assistance to the various oil and gas producing states to facilitate state efforts over a ten-year period to ensure a practical and economical remedy for environmental problems caused by orphaned and abandoned exploration or production well sites on state and private lands. The Secretary shall work with the states, through the Interstate Oil and Gas Compact Commission, to assist the states in quantifying and mitigating environmental risks of onshore abandoned and orphaned wells on state and private lands.

(b) PROGRAM ELEMENTS.—The program should include—

(1) mechanisms to facilitate identification of responsible parties wherever possible;

(2) criteria for ranking critical sites based on factors such as other land use priorities, potential environmental harm and public visibility; and

(3) information and training programs on best practices for remediation of different types of sites.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy for the activities under this section $5,000,000 for each of fiscal years 2003 through 2005 to carry out the provisions of this section.

SEC. 606. OFFSHORE DEVELOPMENT.

Section 5 of the Outer Continental Shelf Lands Act of 1953 (43 U.S.C. 1334) is amended by adding at the end the following:

''(k) SUSPENSION OF OPERATIONS FOR SUBSALT EXPLORATION.—Notwithstanding any other provision of law or regulation, the Secretary may grant a request for a suspension of operations under any lease to allow the lessee to reprocess or reinterpret geologic or geophysical data beneath allocthonous salt sheets, when in the Secretary's judgment such suspension is necessary to prevent waste caused by the drilling of unnecessary wells, and to maximize ultimate recovery of hydrocarbon resources under the lease. Such suspension shall be limited to the minimum period of time the Secretary determines is necessary to achieve the objectives of this subsection.''.

SEC. 607. COALBED METHANE STUDY.

(a) STUDY.—The National Academy of Sciences shall conduct a study on the effects of coalbed methane production on surface and water resources.

(b) DATA ANALYSIS.—The study shall analyze available hydrogeologic and water quality data, along with other pertinent environmental or other information to determine—

(1) adverse effects associated with surface or subsurface disposal of waters produced during extraction of coalbed methane;

(2) depletion of groundwater aquifers or drinking water sources associated with production of coalbed methane;

(3) any other significant adverse impacts to surface or water resources associated with production of coalbed methane; and

(4) production techniques or other factors that can mitigate adverse impacts from coalbed methane development.

(c) RECOMMENDATIONS.—The study shall analyze existing Federal and State laws and regulations, and make recommendations as to changes, if any, to Federal law necessary to address adverse impacts to surface or water resources attributable to coalbed methane development.

(d) COMPLETION OF STUDY.—The National Academy of Sciences shall submit the study to the Secretary of the Interior within 18 months after the date of enactment of this Act, and shall make the study available to the public at the same time.

(e) REPORT TO CONGRESS.—The Secretary of the Interior shall report to Congress within 6 months of her receipt of the study on—

(1) the findings and recommendations of the study;

(2) the Secretary's agreement or disagreement with each of its findings and recommendations; and

(3) any recommended changes in funding to address the effects of coalbed methane production on surface and water resources.

SEC. 608. FISCAL POLICIES TO MAXIMIZE RECOVERY OF DOMESTIC OIL AND GAS RESOURCES.

(a) EVALUATION.—The Secretary of Energy, in coordination with the Secretaries of the Interior, Commerce, and Treasury, Indian tribes and the Interstate Oil and Gas Compact Commission, shall evaluate the impact of existing Federal and State tax and royalty policies on the development of domestic oil and gas resources and on revenues to Federal, State, local and tribal governments.

(b) SCOPE.—The evaluation under subsection (a) shall—

(1) analyze the impact of fiscal policies on oil and natural gas exploration, development drilling, and production under different price scenarios, including the impact of the individual and corporate Alternative Minimum Tax, state and local production taxes and fixed royalty rates during low price periods;

(2) assess the effect of existing federal and state fiscal policies on investment under different geological and developmental circumstances, including but not limited to deepwater environments, subsalt formations, deep and deviated wells, coalbed methane and other unconventional oil and gas formations;

(3) assess the extent to which federal and state fiscal policies negatively impact the ultimate recovery of resources from existing fields and smaller accumulations in offshore waters, especially in water depths less than 800 meters, of the Gulf of Mexico;

(4) compare existing federal and state policies with tax and royalty regimes in other countries with particular emphasis on similar geological, developmental and infrastructure conditions; and

(5) evaluate how alternative tax and royalty policies, including counter-cyclical measures, could increase recovery of domestic oil and natural gas resources and revenues to Federal, State, local and tribal governments.

(c) POLICY RECOMMENDATIONS.—Based upon the findings of the evaluation under subsection (a), a report describing the findings and recommendations for policy changes shall be provided to the President, the Congress, the Governors of the member states of the Interstate Oil and Gas Compact Commission, and Indian tribes having an oil and gas lease approved by the Secretary of the Interior. The recommendations should ensure that the public interest in receiving the economic benefits of tax and royalty revenues is balanced with the broader national security and economic interests in maximizing recovery of domestic resources. The report should include recommendations regarding actions to—

(1) ensure stable development drilling during periods of low oil and/or natural gas prices to maintain reserve replacement and deliverability;

(2) minimize the negative impact of a volatile investment climate on the oil and gas service industry and domestic oil and gas exploration and production;

(3) ensure a consistent level of domestic activity to encourage the education and retention of a technical workforce; and

(4) maintain production capability during periods of low oil and/or natural gas prices.

(d) ROYALTY GUIDELINES.—The recommendations required under (c) should include guidelines for private resource holders as to the appropriate level of royalties given geology, development cost, and the national interest in maximizing recovery of oil and gas resources.

(e) REPORT.—The study under subsection (a) shall be completed not later than 18 months after the date of enactment of this section. The report and recommendations required in (c) shall be transmitted to the President, the Congress, Indian tribes, and the Governors of the member States of the Interstate Oil and Gas Compact Commission.

SEC. 609. STRATEGIC PETROLEUM RESERVE.

(a) FULL CAPACITY.—The President shall—

(1) fill the Strategic Petroleum Reserve established pursuant to part B of title I of the Energy Policy and Conservation Act (42 U.S.C. 6231 et seq.) to full capacity as soon as practicable;

(2) acquire petroleum for the Strategic Petroleum Reserve by the most practicable and cost-effective means, including the acquisition of crude oil the United States is entitled to receive in kind as royalties from production on Federal lands; and

(3) ensure that the fill rate minimizes impacts on petroleum markets.

(b) RECOMMENDATIONS.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to Congress a plan to—

(1) eliminate any infrastructure impediments that may limit maximum drawdown capability; and

(2) determine whether the capacity of the Strategic Petroleum Reserve on the date of enactment of this section is adequate in light of the increasing consumption of petroleum and the reliance on imported petroleum.

TITLE VII—NATURAL GAS PIPELINES

Subtitle A—Alaska Natural Gas Pipeline

SEC. 701. SHORT TITLE.

This subtitle may be cited as the ''Alaska Natural Gas Pipeline Act of 2002''.

SEC. 702. FINDINGS.

The Congress finds that:

(1) Construction of a natural gas pipeline system from the Alaskan North Slope to United States markets is in the national interest and will enhance national energy security by providing access to the significant gas reserves in Alaska needed to meet the anticipated demand for natural gas.

(2) The Commission issued a certificate of public convenience and necessity for the Alaska Natural Gas Transportation System, which remains in effect.

SEC. 703. PURPOSES.

The purposes of this subtitle are—

(1) to expedite the approval, construction, and initial operation of one or more transportation systems for the delivery of Alaska natural gas to the contiguous United States;

(2) to ensure access to such transportation systems on an equal and nondiscriminatory basis and to promote competition in the exploration, development and production of Alaska natural gas; and

(3) to provide federal financial assistance to any transportation system for the transport of Alaska natural gas to the contiguous United States, for which an application for a certificate of public convenience and necessity is filed with the Commission not later than 6 months after the date of enactment of this subtitle.

SEC. 704. ISSUANCE OF CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY.

(a) AUTHORITY OF THE COMMISSION.—Notwithstanding the provisions of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719–719o), the Commission may, pursuant to section 7(c) of the Natural Gas Act (15 U.S.C. 717f(c)), consider and act on an application for the issuance of a certificate of public convenience and necessity authorizing the construction and operation of an Alaska natural gas transportation project other than the Alaska Natural Gas Transportation System.

(b) ISSUANCE OF CERTIFICATE.—

(1) The Commission shall issue a certificate of public convenience and necessity authorizing the construction and operation of an Alaska natural gas transportation project under this section if the applicant has—

(A) entered into a contract to transport Alaska natural gas through the proposed Alaska natural gas transportation project for use in the contiguous United States; and

(B) satisfied the requirements of section 7(e) of the Natural Gas Act (15 U.S.C. 717f(e)).

(2) In considering an application under this section, the Commission shall presume that—

(A) a public need exists to construct and operate the proposed Alaska natural gas transportation project; and

(B) sufficient downstream capacity will exist to transport the Alaska natural gas moving through such project to markets in the contiguous United States.

(c) EXPEDITED APPROVAL PROCESS.—The Commission shall issue a final order granting or denying any application for a certificate of public and convenience and necessity under section 7(c) of the Natural Gas Act (15 U.S.C. 717f(c)) and this section not more than 60 days after the issuance of the final environmental impact statement for that project pursuant to section 705.

(d) REVIEWS AND ACTIONS OF OTHER FEDERAL AGENCIES.—All reviews conducted and actions taken by any federal officer or agency relating to an Alaska natural gas transportation project authorized under this section shall be expedited, in a manner consistent with completion of the necessary reviews and approvals by the deadlines set forth in this subtitle.

(e) REGULATIONS.—The Commission may issue regulations to carry out the provisions of this section.

SEC. 705. ENVIRONMENTAL REVIEWS.

(a) COMPLIANCE WITH NEPA.—The issuance of a certificate of public convenience and necessity authorizing the construction and operation of any Alaska natural gas transportation project under section 704 shall be treated as a major federal action significantly affecting the quality of the human environment within the meaning of section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)).

(b) DESIGNATION OF LEAD AGENCY.—The Commission shall be the lead agency for purposes of complying with the National Environmental Policy Act of 1969, and shall be responsible for preparing the statement required by section 102(2)(c) of that Act (42 U.S.C. 4332(2)(c)) with respect to an Alaska natural gas transportation project under section 704. The Commission shall prepare a single environmental statement under this section, which shall consolidate the environmental reviews of all Federal agencies considering any aspect of the project.

(c) OTHER AGENCIES.—All Federal agencies considering aspects of the construction and operation of an Alaska natural gas transportation project under section 704 shall cooperate with the Commission, and shall comply with deadlines established by the Commission in the preparation of the statement under this section. The statement prepared under this section shall be used by all such agencies to satisfy their responsibilities under section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) with respect to such project.

(d) EXPEDITED PROCESS.—The Commission shall issue a draft statement under this section not later than 12 months after the Commission determines the application to be complete and shall issue the final statement not later than 6 months after the Commission issues the draft statement, unless the Commission for good cause finds that additional time is needed.

(e) UPDATED ENVIRONMENTAL REVIEWS UNDER ANGTA.—The Secretary of Energy shall require the sponsor of the Alaska Natural Gas Transportation System to submit such updated environmental data, reports, permits, and impact analyses as the Secretary determines are necessary to develop detailed terms, conditions, and compliance plans required by section 5 of the President's Decision.

SEC. 706. FEDERAL COORDINATOR.

(a) ESTABLISHMENT.—There is established as an independent establishment in the executive branch, the Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects.

(b) THE FEDERAL COORDINATOR.—The Office shall be headed by a Federal Coordinator for Alaska Natural Gas Transportation Projects, who shall—

(1) be appointed by the President, by and with the advice of the Senate,

(2) hold office at the pleasure of the President, and

(3) be compensated at the rate prescribed for level III of the Executive Schedule (5 U.S.C. 5314).

(c) DUTIES.—The Federal Coordinator shall be responsible for—

(1) coordinating the expeditious discharge of all activities by Federal agencies with respect to an Alaska natural gas transportation project; and

(2) ensuring the compliance of Federal agencies with the provisions of this subtitle.

SEC. 707. JUDICIAL REVIEW.

(a) EXCLUSIVE JURISDICTION.—The United States Court of Appeals for the District of Columbia Circuit shall have exclusive jurisdiction to determine—

(1) the validity of any final order or action (including a failure to act) of the Commission under this subtitle;

(2) the constitutionality of any provision of this subtitle, or any decision made or action taken thereunder; or

(3) the adequacy of any environmental impact statement prepared under the National Environmental Policy Act of 1969 with respect to any action under this subtitle.

(b) DEADLINE FOR FILING CLAIM.—Claims arising under this subtitle may be brought not later than 60 days after the date of the decision or action giving rise to the claim.

SEC. 708. LOAN GUARANTEE.

(a) AUTHORITY.—The Secretary of Energy may guarantee not more than 80 percent of the principal of any loan made to the holder of a certificate of public convenience and necessity issued under section 704(b) of this Act or section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) for the purpose of constructing an Alaska natural gas transportation project.

(b) CONDITIONS—

(1) The Secretary of Energy may not guarantee a loan under this section unless the guarantee has filed an application for a certificate of public convenience and necessity under section 704(b) of this Act or for an amended certificate under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) with the Commission not later than 6 months after the date of enactment of this subtitle.

(2) A loan guaranteed under this section shall be made by a financial institution subject to the examination of the Secretary.

(3) Loan requirements, including term, maximum size, collateral requirements and other features shall be determined by the Secretary.

(c) LIMITATION ON AMOUNT.—Commitments to guarantee loans may be made by the Secretary of Energy only to the extent that the

total loan principal, any part of which is guaranteed, will not exceed $10,000,000,000.

(d) REGULATIONS.—The Secretary of Energy may issue regulations to carry out the provisions of this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to cover the cost of loan guarantees, as defined by section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)).

SEC. 709. STUDY OF ALTERNATIVE MEANS OF CONSTRUCTION.

(a) REQUIREMENT OF STUDY.—If no application for the issuance of a certificate of public convenience and necessity authorizing the construction and operation of an Alaska natural gas transportation project has been filed with the Commission within 6 months after the date of enactment of this title, the Secretary of Energy shall conduct a study of alternative approaches to the construction and operation of the project.

(b) SCOPE OF STUDY.—The study shall consider the feasibility of establishing a government corporation to construct an Alaska natural gas transportation project, and alternative means of providing federal financing and ownership (including alternative combinations of government and private corporate ownership) of the project.

(c) CONSULTATION.—In conducting the study, the Secretary of Energy shall consult with the Secretary of the Treasury and the Secretary of the Army (acting through the Commanding General of the Corps of Engineers).

(d) REPORT.—If the Secretary of Energy is required to conduct a study under subsection (a), he shall submit a report containing the results of the study, his recommendations, and any proposals for legislation to implement his recommendations to the Congress within 6 months after the expiration of the Secretary of Energy's authority to guarantee a loan under section 708.

SEC. 710. SAVINGS CLAUSE.

Nothing in this subtitle affects any decision, certificate, permit, right-of-way, lease, or other authorization issued under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g).

SEC. 711. CLARIFICATION OF AUTHORITY TO AMEND TERMS AND CONDITIONS TO MEET CURRENT PROJECT REQUIREMENTS.

Any Federal officer or agency responsible for granting or issuing any certificate, permit, right-of-way, lease, or other authorization under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) may add to, amend, or abrogate any term or condition included in such certificate, permit, right-of-way, lease, or other authorization to meet current project requirements (including the physical design, facilities, and tariff specifications), so long as such action does not compel a change in the basic nature and general route of the Alaska Natural Gas Transportation System as designated and described in section 2 of the President's Decision, or would otherwise prevent or impair in any significant respect the expeditious construction and initial operation of such transportation system.

SEC. 712. DEFINITIONS.

For purposes of this subtitle:

(1) The term ''Alaska natural gas'' has the meaning given such term by section 4(1) of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719b(1)).

(2) The term ''Alaska natural gas transportation project'' means any other natural gas pipeline system that carries Alaska natural gas from the North Slope of Alaska to the border between Alaska and Canada (including related facilities subject to the jurisdiction of the Commission) that is authorized under either—

(A) the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719–719o); or

(B) section 704 of this subtitle.

(3) The term ''Alaska Natural Gas Transportation System'' means the Alaska natural gas transportation project authorized under the Alaska Natural Gas Transportation Act of 1976 and designated and described in section 2 of the President's Decision.

(4) The term ''Commission'' means the Federal Energy Regulatory Commission.

(5) The term ''natural gas company'' means a person engaged in the transportation of natural gas in interstate commerce or the sale in interstate commerce of such gas for resale; and

(6) The term ''President's Decision'' means the Decision and Report to Congress on the Alaska Natural Gas Transportation system issued by the President on September 22, 1977 pursuant to section 7 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719c) and approved by Public Law 95–158.

SEC. 713. SENSE OF THE SENATE.

It is the sense of the Senate that an Alaska natural gas transportation project will provide significant economic benefits to the United States and Canada. In order to maximize those benefits, the Senate urges the sponsors of the pipeline project to make every effort to use steel that is manufactured or produced in North America and to negotiate a project labor agreement to expedite construction of the pipeline.

Subtitle B—Operating Pipelines

SEC. 721. APPLICATION OF HISTORIC PRESERVATION ACT TO OPERATING PIPELINES.

Section 7 of the Natural Gas Act (15 U.S.C. 717(f)) is amended by adding at the end the following:

''(i)(1) Notwithstanding the National Historic Preservation Act (16 U.S.C. 470 et seq.), a transportation facility shall not be eligible for inclusion on the National Register of Historic Places unless—

''(A) the Commission has permitted the abandonment of the transportation facility pursuant to subsection (b), or

''(B) the owner of the facility has given written consent to such eligibility.

''(2) Any transportation facility considered eligible for inclusion on the National Register of Historic Places prior to the date of enactment of this subsection shall no longer be eligible unless the owner of the facility gives written consent to such eligibility.''.

SEC. 722. ENVIRONMENTAL REVIEW AND PERMITTING OF NATURAL GAS PIPELINE PROJECTS.

(a) INTERAGENCY REVIEW.—The Chairman of the Council on Environmental Quality, in coordination with the Federal Energy Regulatory Commission, shall establish an interagency task force to develop an interagency memorandum of understanding to expedite the environmental review and permitting of natural gas pipeline projects.

(b) MEMBERSHIP OF INTERAGENCY TASK FORCE.—The task force shall consist of—

(1) the Chairman of the Council on Environmental Quality, who shall serve as the Chairman of the interagency task force,

(2) the Chairman of the Federal Energy Regulatory Commission,

(3) the Director of the Bureau of Land Management,

(4) the Director of the U.S. Fish and Wildlife Service,

(5) the Commanding General, U.S. Army Corps of Engineers,

(6) the Chief of the Forest Service,

(7) the Administrator of the Environmental Protection Agency,

(8) the Chairman of the Advisory Council on Historic Preservation, and

(9) the heads of such other agencies as the Chairman of the Council on Environmental Quality and the Chairman of the Federal Energy Regulatory Commission deem appropriate.

(c) MEMORANDUM OF UNDERSTANDING.—The agencies represented by the members of the interagency task force shall enter into the memorandum of understanding not later than one year after the date of the enactment of this section.

DIVISION C—DIVERSIFYING ENERGY DEMAND AND IMPROVING EFFICIENCY

TITLE VIII—FUELS AND VEHICLES

Subtitle A—CAFE Standards and Related Matters

SEC. 801. AVERAGE FUEL ECONOMY STANDARDS FOR PASSENGER AUTOMOBILES AND LIGHT TRUCKS.

(a) INCREASED STANDARDS.—Section 32902 of title 49, United States Code, is amended—

(1) by striking ''NON-PASSENGER AUTOMOBILES.—'' in subsection (a) and inserting ''PRESCRIPTION OF STANDARDS BY REGULATION.—'';

(2) by striking ''(except passenger automobiles)'' in subsection (a) and inserting ''(except passenger automobiles and light trucks)''; and

(3) by striking subsection (b) and inserting the following:

''(b) STANDARDS FOR PASSENGER AUTOMOBILES AND LIGHT TRUCKS.—

''(1) IN GENERAL.—The Secretary of Transportation, after consultation with the Administrator of the Environmental Protection Agency, shall prescribe average fuel economy standards for passenger automobiles and light trucks manufactured by a manufacturer in each model year beginning with model year 2007 in order to achieve a combined average fuel economy standard for passenger automobiles and light trucks for model year 2015 of at least 35 miles per gallon.

''(2) ANNUAL PROGRESS TOWARD STANDARD REQUIRED.—In prescribing average fuel economy standards under paragraph (1), the Secretary shall prescribe appropriate annual fuel economy standard increases for passenger automobiles and light trucks that—

''(A) increase the applicable average fuel economy standard ratably over the 9 model-year period beginning with model year 2007 and ending with model year 2015;

''(B) require that each manufacturer achieve—

''(i) a fuel economy standard for passenger automobiles manufactured by that manufacturer of at least 33.2 miles per gallon no later than model year 2012; and

''(ii) a fuel economy standard for light trucks manufactured by that manufacturer of at least 26.3 miles per gallon no later than model year 2012; and

''(C) for any model year within that 9 model-year period does not result in an average fuel economy standard lower than—

''(i) 27.5 miles per gallon for passenger automobiles; or

''(ii) 20.7 miles per gallon for light duty trucks.

''(3) DEADLINE FOR REGULATIONS.—The Secretary shall promulgate the regulations required by paragraphs (1) and (2) in final form no later than 18 months after the date of enactment of the Energy Policy Act of 2002.

''(4) DEFAULT STANDARDS.—If the Secretary fails to meet the requirement of paragraph (3), the average fuel economy standard for passenger automobiles and light trucks manufactured by a manufacturer in each model year beginning with model year 2005 is the average fuel economy standard set forth in the following tables:

''For model year	The average fuel economy standard for passenger automobiles is:
''2007	28 miles per gallon
''2008	28.5 miles per gallon
''2009	30 miles per gallon
''2010	31 miles per gallon
''2011	32.5 miles per gallon
''2012	34 miles per gallon
''2013	35 miles per gallon
''2014	36.5 miles per gallon
''2015 and thereafter	38.3 miles per gallon

''For model year	The average fuel economy standard for light trucks is:
''2007	21.5 miles per gallon
''2008	22.5 miles per gallon
''2009	23.5 miles per gallon
''2010	24.5 miles per gallon
''2011	26 miles per gallon
''2012	27.5 miles per gallon
''2013	29.5 miles per gallon
''2014	31 miles per gallon
''2015 and thereafter	32 miles per gallon

''(5) COMBINED STANDARD FOR MODEL YEARS AFTER MODEL YEAR 2012.—Unless the default standards under paragraph (4) are in effect, for model years after model year 2012, the Secretary may by rulemaking establish—

''(A) separate average fuel economy standards for passenger automobiles and light trucks manufactured by a manufacturer; or

''(B) a combined average fuel economy standard for passenger automobiles and light trucks manufactured by a manufacturer.'';

(4) by striking ''the standard'' in subsection (c)(1) and inserting ''a standard'';

(5) by striking the first and last sentences of subsection (c)(2); and

(6) by striking ''(and submit the amendment to Congress when required under subsection (c)(2) of this section)'' in subsection (g).

(b) DEFINITION OF LIGHT TRUCKS.—

(1) IN GENERAL.—Section 32901(a) of title 49, United States Code, is amended by adding at the end the following:

''(17) 'light truck' means an automobile that the Secretary decides by regulation—

''(A) is manufactured primarily for transporting not more than 10 individuals;

''(B) is rated at not more than 10,000 pounds gross vehicle weight;

''(C) is not a passenger automobile; and

''(D) does not fall within the exceptions from the definition of 'medium duty passenger vehicle' under section 86.1803–01 of title 40, Code of Federal Regulations.''.

(2) DEADLINE FOR REGULATIONS.—The Secretary of Transportation—

(A) shall issue proposed regulations implementing the amendment made by paragraph (1) not later than 1 year after the date of the enactment of this Act; and

(B) shall issue final regulations implementing the amendment not later than 18 months after the date of the enactment of this Act.

(3) EFFECTIVE DATE.—Regulations prescribed under paragraph (1) shall apply beginning with model year 2007.

(c) APPLICABILITY OF EXISTING STANDARDS.—This section does not affect the application of section 32902 of title 49, United States Code, to passenger automobiles or non-passenger automobiles manufactured before model year 2005.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Transportation to carry out the provisions of chapter 329 of title 49, United States Code, $25,000,000 for each of fiscal years 2003 through 2015.

SEC. 802. FUEL ECONOMY TRUTH IN TESTING.

(a) IN GENERAL.—Section 32907 of title 49, United States Code, is amended by adding at the end the following:

''(c) IMPROVED TESTING PROCEDURES.—

''(1) IN GENERAL.—The Administrator of the Environmental Protection Agency shall conduct—

''(A) an ongoing examination of the accuracy of fuel economy testing of passenger automobiles and light trucks by the Administrator performed in accordance with the procedures in effect as of the date of enactment of the Energy Policy Act of 2002 for the purpose of determining whether, and to what extent, the fuel economy of passenger automobiles and light trucks as tested by the Administrator differs from the fuel economy reasonably to be expected from those automobiles and trucks when driven by average drivers under average driving conditions; and

''(B) an assessment of the extent to which fuel economy changes during the life of passenger automobiles and light trucks.''.

''(2) REPORT.—The Administrator of the Environmental Protection Agency shall, within 12 months after the date of enactment of the Energy Policy Act of 2002 and annually thereafter, submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Commerce of the House of Representatives a report on the results of the study required by paragraph (1). The report shall include—

''(A) a comparison between—

''(i) fuel economy measured, for each model in the applicable model year, through testing procedures in effect as of the date of enactment of the Energy Policy Act of 2002; and

''(ii) fuel economy of such passenger automobiles and light trucks during actual on-road performance, as determined under that paragraph;

''(B) a statement of the percentage difference, if any, between actual on-road fuel economy and fuel economy measured by test procedures of the Environmental Protection Administration; and

''(C) a plan to reduce, by model year 2015, the percentage difference identified under subparagraph (B) by using uniform test methods that reflect actual on-the-road fuel economy consumers experience under normal driving conditions to no greater than 5 percent.''.

SEC. 803. ENSURING SAFETY OF PASSENGER AUTOMOBILES AND LIGHT TRUCKS.

(a) IN GENERAL.—The Secretary of Transportation shall exercise such authority under Federal law as the Secretary may have to ensure that—

(1) passenger automobiles and light trucks (as those terms are defined in section 32901 of title 49, United States Code) are safe;

(2) progress is made in improving the overall safety of passenger automobiles and light trucks; and

(3) progress is made in maximizing United States employment.

(b) IMPROVED CRASHWORTHINESS.—Subchapter II of chapter 301 of title 49, United States Code, is amended by adding at the end the following:

''§ 30128. Improved crashworthiness

''(a) ROLLOVERS.—Within 3 years after the date of enactment of the Energy Policy Act of 2002, the Secretary of Transportation, through the National Highway Traffic Safety Administration, shall prescribe a motor vehicle safety standard under this chapter for rollover crashworthiness standards that includes—

''(1) dynamic roof crush standards;

''(2) improved seat structure and safety belt design;

''(3) side impact head protection airbags; and

''(4) roof injury protection measures.

''(b) HEAVY VEHICLE HARM REDUCTION COMPATIBILITY STANDARD.—

''(1) Within 3 years after the date of enactment of the Energy Policy Act of 2002, the Secretary, through the National Highway Traffic Safety Administration, shall prescribe a Federal motor vehicle safety standard under this chapter that will reduce the aggressivity of light trucks by 30 percent, using a baseline of model year 2002, and will improve vehicle compatibility in collisions between light trucks and cars, in order to protect against unnecessary death and injury.

''(2) The Secretary should review the effectiveness of this standard every five years following final issuance of the standard and shall issue, through the National Highway Traffic Safety Administration, upgrades to the standard to reduce fatalities and injuries related to vehicle compatibility and light truck aggressivity.''.

(c) CONFORMING AMENDMENT.—The chapter analysis for chapter 301 of title 49, United States Code, is amended by inserting after the item relating to section 30127 the following: ''30128. Improved crashworthiness''.

SEC. 804. HIGH OCCUPANCY VEHICLE EXCEPTION.

(a) IN GENERAL.—Notwithstanding section 102(a)(1) of title 23, United States Code, a State may, for the purpose of promoting energy conservation, permit a vehicle with fewer than 2 occupants to operate in high occupancy vehicle lanes if it is a hybrid vehicle or is certified by the Secretary of Transportation, after consultation with the Administrator of the Environmental Protection Agency, to be a vehicle that runs only on an alternative fuel.

(b) HYBRID VEHICLE DEFINED.—In this section, the term ''hybrid vehicle'' means a motor vehicle—

(1) which—

(A) draws propulsion energy from onboard sources of stored energy which are both—

(i) an internal combustion or heat engine using combustible fuel; and

(ii) a rechargeable energy storage system; or

(B) recovers kinetic energy through regenerative braking and provides at least 13 percent maximum power from the electrical storage device;

(2) which, in the case of a passenger automobile or light truck—

(A) for 2002 and later model vehicles, has received a certificate of conformity under section 206 of the Clean Air Act (42 U.S.C. 7525) and meets or exceeds the equivalent qualifying California low emission vehicle standard under section 243(e)(2) of the Clean Air Act (42 U.S.C. 7583(e)(2)) for that make and model year; and

(B) for 2004 and later model vehicles, has received a certificate that such vehicle meets the Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)) for that make and model year vehicle; and

(3) which is made by a manufacturer.

(c) ALTERNATIVE FUEL DEFINED.—In this section, the term ''alternative fuel'' has the meaning such term has under section 301(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2)).

SEC. 805. CREDIT TRADING PROGRAM.

(a) IN GENERAL.—Section 32903 of title 49, United States Code, is amended by adding at the end the following:

''(g) VEHICLE CREDIT TRADING SYSTEM.—

''(1) IN GENERAL.—The Secretary of Transportation, with technical assistance from the Administrator of the Environmental Protection Agency, may establish a system under which manufacturers with credits under this section may sell those credits to other manufacturers or transfer them among a manufacturer's fleets.

''(2) PURPOSES.—The purposes of the system are:

''(A) Reducing the adverse effects of inefficient consumption of fuel by passenger automobiles and light trucks.

''(B) Accelerating introduction of advanced technology vehicles into use in the United States.

''(C) Encouraging manufacturers to exceed the average fuel economy standards established by section 32902.

''(D) Reducing emissions of carbon dioxide by passenger automobiles and light trucks.

''(E) Decreasing the United States' consumption of oil as vehicular fuel.

''(F) Providing manufacturers flexibility in meeting the average fuel economy standards established by section 32902.

''(G) Increasing consumer choice.

''(3) PROGRAM REQUIREMENTS.—The system established under paragraph (1) shall—

''(A) make only credits accrued after the date of enactment of the Energy Policy Act of 2002 eligible for transfer or sale;

''(B) use techniques and methods that minimize reporting costs for manufacturers;

''(C) provide for monitoring and verification of credit purchases;

''(D) require participating manufacturers to report monthly sales of vehicles to the Administrator of the Environmental Protection Agency; and

''(E) make manufacturer-specific credit, transfer, sale, and purchase information publicly available through annual reports and monthly posting of transactions on the Internet.

''(4) CREDITS MAY BE TRADED BETWEEN PASSENGER AUTOMOBILES AND LIGHT TRUCKS AND BETWEEN DOMESTIC AND IMPORT FLEETS.—The system shall provide that credits earned under this section—

''(A) with respect to passenger automobiles may be applied with respect to light trucks;

''(B) with respect to light trucks may be applied with respect to passenger automobiles;

''(C) with respect to passenger automobiles manufactured domestically may be applied with respect to passenger automobiles not manufactured domestically; and

''(D) with respect to passenger automobiles not manufactured domestically may be applied with respect to passenger automobiles manufactured domestically.

''(5) REPORT.—The Secretary and the Administrator shall jointly submit an annual report to the Congress—

''(A) describing the effectiveness of the credits provided by this subsection achieving the purposes described in paragraph (2); and

''(B) setting forth a full accounting of all credits, transfers, sales, and purchases for the most recent model year for which data is available.''.

(b) NO CARRYBACK OF CREDITS.—Section 32903(a) of title 49, United States Code, is amended—

(1) by striking ''applied to—'' and inserting ''applied—'';

(2) by inserting ''for model years before model year 2006, to'' in paragraph (1) before ''any'';

(3) by striking ''and'' after the semicolon in paragraph (1);

(4) by striking ''earned.'' in paragraph (2) and inserting ''earned; and''; and

(5) by adding at the end the following:

''(3) for model years after 2001, in accordance with the vehicle credit trading system established under subsection (g), to any of the 3 consecutive model years immediately after the model year for which the credit was earned.''.

(c) USE OF CREDIT VALUE TO CALCULATE CIVIL PENALTY.—Section 32912(b) of title 49, United States Code, is amended—

(1) by inserting ''and is unable to purchase sufficient credits under section 32903(g) to comply with the standard'' after ''title'' the first place it appears; and

(2) by striking all after ''penalty'' and inserting ''of the greater of—

''(1) an amount determined by multiplying—

''(A) the number of credits necessary to enable the manufacturer to meet that standard; by

''(B) 1.5 times the previous year's weighted average open market price of a credit under section 32903(g); or

''(2) $5 multiplied by each 0.1 of a mile a gallon by which the applicable average fuel economy standard under section 32902 exceeds the average fuel economy—

''(A) calculated under section 32904(a)(1)(A) or (B) for automobiles to which the standard applied manufactured by the manufacturer during the model year;

''(B) multiplied by the number of those automobiles; and

''(C) reduced by the credits available to the manufacturer under section 32903 for the model year.''.

(d) CONFORMING AMENDMENTS.—Section 32903 of title 49, United States Code, is amended—

(1) by inserting ''or light trucks'' after ''passenger automobiles'' each place it appears in subsection (c);

(2) by inserting after ''manufacturer.'' in subsection (d) ''Credits earned with respect to passenger automobiles may be used with respect to nonpassenger automobiles and light duty trucks.''; and

(3) by inserting after ''manufacturer.'' in subsection (e) ''Credits earned with respect to non-passenger automobiles or light trucks may be used with respect to passenger automobiles.''.

SEC. 806. GREEN LABELS FOR FUEL ECONOMY.

Section 32908 of title 49, United States Code, is amended—

(1) by striking ''title.'' in subsection (a)(1) and inserting ''title, and a light truck (as defined in section 32901(17) after model year 2005; and'';

(2) by redesignating subparagraph (F) of subsection (b)(1) as subparagraph (H), and inserting after subparagraph (E) the following:

''(F) a label (or a logo imprinted on a label required by this paragraph) that—

''(i) reflects an automobile's performance on the basis of criteria developed by the Administrator to reflect the fuel economy and greenhouse gas and other emissions consequences of operating the automobile over its likely useful life;

''(ii) permits consumers to compare performance results under clause (i) among all passenger automobiles and light duty trucks (as defined in section 32901) and with vehicles in the vehicle class to which it belongs; and

''(iii) is designed to encourage the manufacture and sale of passenger automobiles and light trucks that meet or exceed applicable fuel economy standards under section 32902.

''(G) a fuelstar under paragraph (5).''; and

(3) by adding at the end of subsection (b) the following:

''(4) GREEN LABEL PROGRAM.—

''(A) MARKETING ANALYSIS.—Within 2 years after the date of enactment of the Energy Policy Act of 2002, the Administrator shall complete a study of social marketing strategies with the goal of maximizing consumer understanding of point-of-sale labels or logos described in paragraph (1)(F).

''(B) CRITERIA.—In developing criteria for the label or logo, the Administrator shall also consider, among others as appropriate, the following factors:

''(i) The amount of greenhouse gases that will be emitted over the life-cycle of the automobile.

''(ii) The fuel economy of the automobile.

''(iii) The recyclability of the automobile.

''(iv) Any other pollutants or harmful byproducts related to the automobile, which may include those generated during manufacture of the automobile, those issued during use of the automobile, or those generated after the automobile ceases to be operated.

''(5) FUELSTAR PROGRAM.—The Secretary, in consultation with the Administrator, shall establish a program, to be known as the 'fuelstar' program, under which stars shall be imprinted on or attached to the label required by paragraph (1) that will, consistent with the findings of the marketing analysis required under subsection 4(A), provide consumer incentives to purchase vehicles that exceed the applicable fuel economy standard.

SEC. 807. LIGHT TRUCK CHALLENGE.

(a) IN GENERAL.—The Secretary of Transportation shall conduct an open competition for a project to demonstrate the feasibility of multiple fuel hybrid electric vehicle powertrains in sport utility vehicles and light trucks. The Secretary shall execute a contract with the entity determined by the Secretary to be the winner of the competition under which the Secretary will provide $10,000,000 to that entity in each of fiscal years 2003 and 2004 to carry out the project.

(b) PROJECT REQUIREMENTS.—Under the contract, the Secretary shall require the entity to which the contract is awarded to—

(1) select a current model year production vehicle;

(2) modify that vehicle so that it—

(A) meets all existing vehicle performance characteristics of the sport utility vehicle or light truck selected for the project;

(B) improves the vehicle's fuel economy rating by 50 percent or more (as measured by gasoline consumption); and

(3) meet the requirements of paragraph (2) in such a way that incorporation of the modification in the manufacturer's production process would not increase the vehicle's incremental production costs by more than 10 percent.

(c) ELIGIBLE ENTRANTS.—The competition conducted by the Secretary shall be open to any entity, or consortium of nongovernmental entities, educational institutions, and not-for-profit organizations, that—

(1) has the technical capability and resources needed to complete the project successfully; and

(2) has sufficient financial resources in addition to the contract amount, if necessary, to complete the contract successfully.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Transportation $10,000,000 for each of fiscal years 2003 and 2004 to carry out this section.

SEC. 808. SECRETARY OF TRANSPORTATION TO CERTIFY BENEFITS.

Beginning with model year 2005, the Secretary of Transportation, in consultation with the Administrator of the Environmental Protection Agency, shall determine and certify annually to the Congress—

(1) the annual reduction in United States consumption of petroleum used for vehicle fuel, and

(2) the annual reduction in greenhouse gas emissions,

properly attributable to the implementation of the average fuel economy standards imposed under section 32902 of title 49, United States Code, as a result of the amendments made by this Act.

SEC. 809. DEPARTMENT OF TRANSPORTATION ENGINEERING AWARD PROGRAM.

(a) ENGINEERING TEAM AWARDS.—The Secretary of Transportation shall establish an engineering award program to recognize the

engineering team of any manufacturer of passenger automobiles or light trucks (as such terms are defined in section 32901 of title 49, United States Code) whose work directly results in production models of—

(1) the first large sport utility vehicle, van, or light truck to achieve a fuel economy rating of 30 miles per gallon under section 32902 of such title;

(2) the first mid-sized sport utility vehicle, van, or light truck to achieve a fuel economy rating of 35 miles per gallon under section 32902 of such title; and

(3) the first small sport utility vehicle, van, or light truck to achieve a fuel economy rating of 40 miles per gallon under section 32902 of such title.

(b) MANUFACTURER'S AWARD.—The Secretary of Transportation shall establish an Oil Independence Award to recognize the first manufacturer of domestically-manufactured (within the meaning of section 32903 of title 49, United States Code) passenger automobiles and light trucks to achieve a combined fuel economy rating of 37 miles per gallon under section 32902 of such title.

(c) REQUIREMENTS FOR PARTICIPATION IN ENGINEERING TEAM AWARDS PROGRAM.—In establishing the engineering team awards program under subsection (a), the Secretary shall establish eligibility requirements that include—

(1) a requirement that the vehicle, van, or truck be domestically-manufactured or manufacturable (if a prototype) within the meaning of section 32903 of title 49, United States Code;

(2) a requirement that the vehicle, van, or truck meet all applicable Federal standards for emissions and safety (except that crash testing shall not be required for a prototype); and

(3) such additional requirements as the Secretary may require in order to carry out the program.

(d) AMOUNT OF PRIZE.—The Secretary shall award a prize of not less than $10,000 to each engineering team determined by the Secretary to have successfully met the requirements of subsection (a)(1), (2), or (3). The Secretary shall provide for recognition of any manufacturer to have met the requirements of subsection (b) with appropriate ceremonies and activities, and may provide a monetary award in an amount determined by the Secretary to be appropriate.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Transportation such sums as may be necessary to carry out this section.

SEC. 810. COOPERATIVE TECHNOLOGY AGREEMENTS.

(a) IN GENERAL.—The Secretary of Transportation, in cooperation with the Administrator of the Environmental Protection Agency, may execute a cooperative research and development agreement with any manufacturer of passenger automobiles or light trucks (as those terms are defined in section 32901 of title 49, United States Code) to implement, utilize, and incorporate in production government-developed or jointly-developed fuel economy technology that will result in improvements in the average fuel economy of any class of vehicles produced by that manufacturer of at least 55 percent greater than the average fuel economy of that class of vehicles for model year 2000.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Transportation and the Administrator of the Environmental Protection Agency such sums as may be necessary to carry out this section.

Subtitle B—Alternative and Renewable Fuels

SEC. 811. INCREASED USE OF ALTERNATIVE FUELS BY FEDERAL FLEETS.

(a) REQUIREMENT TO USE ALTERNATIVE FUELS.—Section 400AA(a)(3)(E) of the Energy Policy and Conservation Act (42 U.S.C. 6374(a)(3)(E)) is amended to read as follows:

''(E) Dual fueled vehicles acquired pursuant to this section shall be operated on alternative fuels. If the Secretary determines that all dual fueled vehicles acquired pursuant to this section cannot operate on alternative fuels at all times, he may waive the requirement in part, but only to the extent that:

''(i) Not later than September 30, 2003, not less than 50 percent of the total annual volume of fuel used in such dual fueled vehicles shall be from alternative fuels.

''(ii) Not later than September 30, 2005, not less than 75 percent of the total annual volume of fuel used in such dual fueled vehicles shall be from alternative fuels.''.

(b) DEFINITION OF ''DEDICATED VEHICLE''.—Section 400AA(g)(4)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6374(g)(4)(B)) is amended by inserting after ''solely on alternative fuel'' the following: '', including a three-wheeled enclosed electric vehicle having a vehicle identification number''.

SEC. 812. EXCEPTION TO HOV PASSENGER REQUIREMENTS FOR ALTERNATIVE FUEL VEHICLES.

Section 102(a)(1) of title 23, United States Code, is amended by inserting after ''required'' the following: ''(unless, in the discretion of the State transportation department, the vehicle is being operated on, or is being fueled by, an alternative fuel (as defined in section 301(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2)))''.

SEC. 813. DATA COLLECTION.

Section 205 of the Department of Energy Organization Act (42 U.S.C. 7135) is amended by adding at the end the following:

''(m) In order to improve the ability to evaluate the effectiveness of the Nation's renewable fuels mandate, the Administrator shall conduct and publish the results of a survey of renewable fuels consumption in the motor vehicle fuels market in the United States monthly, and in a manner designed to protect the confidentiality of individual responses. In conducting the survey, the Administrator shall collect information both on a national basis and a regional basis, including—

(1) the quantity of renewable fuels produced;

(2) the cost of production;

(3) the cost of blending and marketing;

(4) the quantity of renewable fuels consumed;

(5) the quantity of renewable fuels imported; and

(6) market price data.

SEC. 814. GREEN SCHOOL BUS PILOT PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy and the Secretary of Transportation shall jointly establish a pilot program for awarding grants on a competitive basis to eligible entities for the demonstration and commercial application of alternative fuel school buses and ultra-low sulfur diesel school buses.

(b) REQUIREMENTS.—Not later than 3 months after the date of the enactment of this Act, the Secretary shall establish and publish in the Federal register grant requirements on eligibility for assistance, and on implementation of the program established under subsection (a), including certification requirements to ensure compliance with this subtitle.

(c) SOLICITATION.—Not later than 6 months after the date of the enactment of this Act, the Secretary shall solicit proposals for grants under this section.

(d) ELIGIBLE RECIPIENTS.—A grant shall be awarded under this section only—

(1) to a local governmental entity responsible for providing school bus service for one or more public school systems; or

(2) jointly to an entity described in paragraph (1) and a contracting entity that provides school bus service to the public school system or systems.

(e) TYPES OF GRANTS.—

(1) IN GENERAL.—Grants under this section shall be for the demonstration and commercial application of technologies to facilitate the use of alternative fuel school buses and ultra-low sulfur diesel school buses instead of buses manufactured before model year 1977 and diesel-powered buses manufactured before model year 1991.

(2) NO ECONOMIC BENEFIT.—Other than the receipt of the grant, a recipient of a grant under this section may not receive any economic benefit in connection with the receipt of the grant.

(3) PRIORITY OF GRANT APPLICATIONS.—The Secretary shall give priority to awarding grants to applicants who can demonstrate the use of alternative fuel buses and ultra-low sulfur diesel school buses instead of buses manufactured before model year 1977.

(f) CONDITIONS OF GRANT.—A grant provided under this section shall include the following conditions:

(1) All buses acquired with funds provided under the grant shall be operated as part of the school bus fleet for which the grant was made for a minimum of 5 years.

(2) Funds provided under the grant may only be used—

(A) to pay the cost, except as provided in paragraph (3), of new alternative fuel school buses or ultra-low sulfur diesel school buses, including State taxes and contract fees; and

(B) to provide—

(i) up to 10 percent of the price of the alternative fuel buses acquired, for necessary alternative fuel infrastructure if the infrastructure will only be available to the grant recipient; and

(ii) up to 15 percent of the price of the alternative fuel buses acquired, for necessary alternative fuel infrastructure if the infrastructure will be available to the grant recipient and to other bus fleets.

(3) The grant recipient shall be required to provide at least the lesser of 15 percent of the total cost of each bus received or $15,000 per bus.

(4) In the case of a grant recipient receiving a grant to demonstrate ultra-low sulfur diesel school buses, the grant recipient shall be required to provide documentation to the satisfaction of the Secretary that diesel fuel containing sulfur at not more than 15 parts per million is available for carrying out the purposes of the grant, and a commitment by the applicant to use such fuel in carrying out the purposes of the grant.

(g) BUSES.—Funding under a grant made under this section may only be used to demonstrate the use of new alternative fuel school buses or ultra-low sulfur diesel school buses that—

(1) have a gross vehicle weight greater than 14,000 pounds;

(2) are powered by a heavy duty engine;

(3) in the case of alternative fuel school buses, emit not more than—

(A) for buses manufactured in model year 2002, 2.5 grams per brake horsepower-hour of nonmethane hydrocarbons and oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter; and

(B) for buses manufactured in model years 2003 through 2006, 1.8 grams per brake horsepower-hour of nonmethane hydrocarbons and oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter; and

(4) in the case of ultra-low sulfur diesel school buses, emit not more than the lesser of—

(A) the emissions of nonmethane hydrocarbons, oxides of nitrogen, and particulate matter of the best performing technology of the same class of ultra-low sulfur diesel school buses commercially available at the time the grant is made; or

(B) the applicable following amounts—

(i) for buses manufactured in model year 2002 or 2003, 3.0 grams per brake horsepower-hour of oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter; and

(ii) for buses manufactured in model years 2004 through 2006, 2.5 grams per brake horsepower-hour of nonmethane hydrocarbons and oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter.

(h) DEPLOYMENT AND DISTRIBUTION.—The Secretary shall seek to the maximum extent practicable to achieve nationwide deployment of alternative fuel school buses through the program under this section, and shall ensure a broad geographic distribution of grant awards, with a goal of no State receiving more than 10 percent of the grant funding made available under this section for a fiscal year.

(i) LIMIT ON FUNDING.—The Secretary shall provide not less than 20 percent and not more than 25 percent of the grant funding made available under this section for any fiscal year for the acquisition of ultra-low sulfur diesel school buses.

(j) DEFINITIONS.—For purposes of this section—

(1) the term ''alternative fuel school bus'' means a bus powered substantially by electricity (including electricity supplied by a fuel cell), or by liquefied natural gas, compressed natural gas, liquefied petroleum gas, hydrogen, propane, or methanol or ethanol at no less than 85 percent by volume; and

(2) the term ''ultra-low sulfur diesel school bus'' means a school bus powered by diesel fuel which contains sulfur at not more than 15 parts per million.

SEC. 815. FUEL CELL BUS DEVELOPMENT AND DEMONSTRATION PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish a program for entering into cooperative agreements with private sector fuel cell bus developers for the development of fuel cell-powered school buses, and subsequently with not less than 2 units of local government using natural gas-powered school buses and such private sector fuel cell bus developers to demonstrate the use of fuel cell-powered school buses.

(b) COST SHARING.—The non-Federal contribution for activities funded under this section shall be not less than—

(1) 20 percent for fuel infrastructure development activities; and

(2) 50 percent for demonstration activities and for development activities not described in paragraph (1).

(c) FUNDING.—No more than $25,000,000 of the amounts authorized under section 815 may be used for carrying out this section for the period encompassing fiscal years 2003 through 2006.

(d) REPORTS TO CONGRESS.—Not later than 3 years after the date of the enactment of this Act, and not later than October 1, 2006, the Secretary shall transmit to the appropriate congressional committees a report that—

(1) evaluates the process of converting natural gas infrastructure to accommodate fuel cell-powered school buses; and

(2) assesses the results of the development and demonstration program under this section.

SEC. 816. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Energy for carrying out sections 814 and 815, to remain available until expended—

(1) $50,000,000 for fiscal year 2003;

(2) $60,000,000 for fiscal year 2004;

(3) $70,000,000 for fiscal year 2005; and

(4) $80,000,000 for fiscal year 2006.

SEC. 817. BIODIESEL FUEL USE CREDIT.

Section 312(c) of the Energy Policy Act of 1992 (42 U.S.C. 13220(c)) is amended—

(1) by striking ''NOT'' in the subsection heading; and

(2) by striking ''not''.

SEC. 818. NEIGHBORHOOD ELECTRIC VEHICLES.

Section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211) is amended—

(1) by striking ''or a dual fueled vehicle'' and inserting '', a dual fueled vehicle, or a neighborhood electric vehicle'';

(2) by striking ''and'' at the end of paragraph (13);

(3) by striking the period at the end of subparagraph (14) and inserting ''; and''; and

(4) by adding at the end the following:

''(15) the term 'neighborhood electric vehicle' means a motor vehicle that qualifies as both—

''(A) a low-speed vehicle, as such term is defined in section 571.3(b) of title 49, Code of Federal Regulations; and

''(B) a zero-emission vehicle, as such term is defined in section 86.1703–99 of title 40, Code of Federal Regulations.''.

SEC. 819. RENEWABLE CONTENT OF MOTOR VEHICLE FUEL.

(a) IN GENERAL.—Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended—

(1) by redesignating subsection (o) as subsection (q); and

(2) by inserting after subsection (n) the following:

''(o) RENEWABLE FUEL PROGRAM.—

''(1) DEFINITIONS.—In this section:

''(A) CELLULOSIC BIOMASS ETHANOL.—The term 'cellulosic biomass ethanol' means ethanol derived from any lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis, including—

''(i) dedicated energy crops and trees;

''(ii) wood and wood residues;

''(iii) plants;

''(iv) grasses;

''(v) agricultural commodities and residues;

''(vi) fibers;

''(vii) animal wastes and other waste materials; and

''(viii) municipal solid waste.

''(B) RENEWABLE FUEL.—

''(i) IN GENERAL.—The term 'renewable fuel' means motor vehicle fuel that—

''(I)(aa) is produced from grain, starch, oilseeds, or other biomass; or

''(bb) is natural gas produced from a biogas source, including a landfill, sewage waste treatment plant, feedlot, or other place where decaying organic material is found; and

''(II) is used to replace or reduce the quantity of fossil fuel present in a fuel mixture used to operate a motor vehicle.

''(ii) INCLUSION.—The term 'renewable fuel' includes cellulosic biomass ethanol and biodiesel (as defined in section 312(f) of the Energy Policy Act of 1992 (42 U.S.C. 13220(f)).

''(C) SMALL REFINERY.—The term 'small refinery' means a refinery for which average aggregate daily crude oil throughput for the calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

''(2) RENEWABLE FUEL PROGRAM.—

''(A) IN GENERAL.—Not later than one year from enactment of this provision, the Administrator shall promulgate regulations ensuring that gasoline sold or dispensed to consumers in the United States, on an annual average basis, contains the applicable volume of renewable fuel as specified in subparagraph (B). Regardless of the date of promulgation, such regulations shall contain compliance provisions for refiners, blenders, distributors and importers, as appropriate, to ensure that the requirements of this section are met, but shall not restrict where renewables can be used, or impose any per-gallon obligation for the use of renewables. If the Administrator does not promulgate such regulations, the applicable percentage, on a volume percentage of gasoline basis, shall be 1.62 in 2004.

''(B) APPLICABLE VOLUME.—

(i) CALENDAR YEARS 2004 THROUGH 2012.—For the purpose of subparagraph (A), the applicable volume for any of calendar years 2004 through 2012 shall be determined in accordance with the following table:

Applicable volume of renewable fuel

''Calendar year:	(In billions of gallons)
2004	2.3
2005	2.6
2006	2.9
2007	3.2
2008	3.5
2009	3.9
2010	4.3
2011	4.7
2012	5.0.

''(ii) CALENDAR YEAR 2013 AND THEREAFTER.—For the purpose of subparagraph (A), the applicable volume for calendar year 2013 and each calendar year thereafter shall be equal to the product obtained by multiplying—

''(I) the number of gallons of gasoline that the Administrator estimates will be sold or introduced into commerce in the calendar year; and

''(II) the ratio that—

''(aa) 5.0 billion gallons of renewable fuels; bears to

''(bb) the number of gallons of gasoline sold or introduced into commerce in calendar year 2012.

''(3) APPLICABLE PERCENTAGES.—Not later than October 31 of each calendar year, through 2011, the Administrator of the Energy Information Administration shall provide the Administrator an estimate of the volumes of gasoline sales in the United States for the coming calendar year. Based on such estimates, the Administrator shall by November 30 of each calendar year, through 2011, determine and publish in the Federal Register, the renewable fuel obligation, on a volume percentage of gasoline basis, applicable to refiners, blenders, distributors and importers, as appropriate, for the coming calendar year, to ensure that the requirements of paragraph (2) are met. For each calendar year, the Administrator shall establish a single applicable percentage that applies to all parties, and make provision to avoid redundant obligations. In determining the applicable percentages, the Administrator shall make adjustments to account for the use of renewable fuels by exempt small refiners during the previous year.

''(4) CELLULOSIC BIOMASS ETHANOL.—For the purpose of paragraph (2), 1 gallon of cellulosic biomass ethanol shall be considered to be the equivalent of 1.5 gallon of renewable fuel.

''(5) CREDIT PROGRAM.—

''(A) IN GENERAL.—The regulations promulgated to carry out this subsection shall provide for the generation of an appropriate amount of credits by any person that refines, blends, distributes or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2). Such regulations shall provide for the generation of an appropriate amount of credits for biodiesel fuel. If a small refinery notifies the Administrator that it waives the exemption provided by this Act, the regulations shall provide for the generation of credits by the small refinery beginning in the year following such notification.

''(B) USE OF CREDITS.—A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

''(C) LIFE OF CREDITS.—A credit generated under this paragraph shall be valid to show compliance:

(i) in the calendar year in which the credit was generated or the next calendar year, or

(ii) in the calendar year in which the credit was generated or next two consecutive calendar years if the Administrator promulgates regulations under paragraph (6).

''(D) INABILITY TO PURCHASE SUFFICIENT CREDITS.—The regulations promulgated to carry out this subsection shall include provisions allowing any person that is unable to generate or purchase sufficient credits to meet the requirements under paragraph (2) to carry forward a renewables deficit provided that, in the calendar year following the year in which the renewables deficit is created, such person shall achieve compliance with the renewables requirement under paragraph (2), and shall generate or purchase additional renewables credits to offset the renewables deficit of the previous year.

''(6) SEASONAL VARIATIONS IN RENEWABLE FUEL USE.—

''(A) STUDY.—For each of calendar years 2004 through 2012, the Administrator of the Energy Information Administration, shall conduct a study of renewable fuels blending to determine whether there are excessive seasonal variations in the use of renewable fuels.

''(B) REGULATION OF EXCESSIVE SEASONAL VARIATIONS.—If, for any calendar year, the Administrator of the Energy Information Administration, based on the study under subparagraph (A), makes the determinations specified in subparagraph (C), the Administrator shall promulgate regulations to ensure that 35 percent or more of the quantity of renewable fuels necessary to meet the requirement of paragraph (2) is used during each of the periods specified in subparagraph (D) of each subsequent calendar year.

''(C) DETERMINATIONS.—The determinations referred to in subparagraph (B) are that—

''(i) less than 35 percent of the quantity of renewable fuels necessary to meet the requirement of paragraph (2) has been used during 1 of the periods specified in subparagraph (D) of the calendar year; and

''(ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years.

''(D) PERIODS.—The two periods referred to in this paragraph are—

''(i) April through September; and

''(ii) January through March and October through December.

''(E) EXCLUSIONS.—Renewable fuels blended or consumed in 2004 in a state which has received a waiver under section 209(b) shall not be included in the study in subparagraph (A).

''(7) WAIVERS.—

''(A) IN GENERAL.—The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirement of paragraph (2) in whole or in part on petition by 1 or more States by reducing the national quantity of renewable fuel required under this subsection—

''(i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or

''(ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply or distribution capacity to meet the requirement.

''(B) PETITIONS FOR WAIVERS.—The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy—

''(i) shall approve or deny a State petition for a waiver of the requirement of paragraph (2) within 180 days after the date on which the petition is received; but

''(ii) may extend that period for up to 60 additional days to provide for public notice and opportunity for comment and for consideration of the comments submitted.

''(C) TERMINATION OF WAIVERS.—A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

''(8) STUDY AND WAIVER FOR INITIAL YEAR OF PROGRAM.—Not later than 180 days from enactment, the Secretary of Energy shall complete for the Administrator a study assessing whether the renewable fuels requirement under paragraph (2) will likely result in significant adverse consumer impacts in 2004, on a national, regional or state basis. Such study shall evaluate renewable fuel supplies and prices, blendstock supplies, and supply and distribution system capabilities. Based on such study, the Secretary shall make specific recommendations to the Administrator regarding waiver of the requirements of paragraph (2), in whole or in part, to avoid any such adverse impacts. Within 270 days from enactment, the Administrator shall, consistent with the recommendations of the Secretary waive, in whole or in part, the renewable fuels requirement under paragraph (2) by reducing the national quantity of renewable fuel required under this subsection in 2004. This provision shall not be interpreted as limiting the Administrator's authority to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7), pertaining to waivers.

''(9) SMALL REFINERIES.—

''(A) IN GENERAL.—The requirement of paragraph (2) shall not apply to small refineries until January 1, 2008. Not later than December 31, 2006, the Secretary of Energy shall complete for the Administrator a study to determine whether the requirement of paragraph (2) would impose a disproportionate economic hardship on small refineries. For any small refinery that the Secretary of Energy determines would experience a disproportionate economic hardship, the Administrator shall extend the small refinery exemption for such small refinery for no less than two additional years.

''(B) ECONOMIC HARDSHIP.—

''(i) A small refinery may at any time petition the Administrator for an extension of the exemption from the requirement of paragraph (2) for the reason of disproportionate economic hardship. In evaluating a hardship petition, the Administrator, in consultation with the Secretary of Energy, shall consider the findings of the study in addition to other economic factors.

''(ii) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the receipt of the petition.

''(C) CREDIT PROGRAM.—If a small refinery notifies the Administrator that it waives the exemption provided by this Act, the regulations shall provide for the generation of credits by the small refinery beginning in the year following such notification.

''(D) OPT-IN FOR SMALL REFINERS.—A small refinery shall be subject to the requirements of this section if it notifies the Administrator that it waives the exemption under subparagraph (A).

''(10) STUDY.—Not later than 180 days after the date of enactment, the Secretary of Energy shall complete for the Administrator a study assessing whether the renewable fuels requirement under paragraph (2) will likely result in significant adverse consumer impacts in 2004, on a national, regional or state basis. Such study shall evaluate renewable fuel supplies and prices, blendstock supplies, and supply and distribution system capabilities. Based on such study, the Secretary shall make specific recommendations to the Administrator regarding waiver of the requirements of paragraph (2), in whole or in part, to avoid any such adverse impacts. Within 270 days after the date of enactment, the Administrator shall, consistent with the recommendations of the Secretary waive, in whole or in part, the renewable fuels requirement under paragraph (2) by reducing the national quantity of renewable fuel required under this subsection in 2004. This provision shall not be interpreted as limiting the Administrator's authority to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7), pertaining to waivers.''.

(b) PENALTIES AND ENFORCEMENT.—Section 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is amended—

(1) in paragraph (1)—

(A) in the first sentence, by striking ''or (n)'' each place it appears and inserting ''(n) or (o)''; and

(B) in the second sentence, by striking ''or (m)'' and inserting ''(m), or (o)''; and

(2) in the first sentence of paragraph (2), by striking ''and (n)'' each place it appears and inserting ''(n), and (o)''.

(c) EXCLUSION FROM ETHANOL WAIVER.—Section 211(h) of the Clean Air Act (42 U.S.C. 7545(h)) is amended—

(1) by redesignating paragraph (5) as paragraph (6); and

(2) by inserting after paragraph (4) the following:

''(5) EXCLUSION FROM ETHANOL WAIVER.—

''(A) PROMULGATION OF REGULATIONS.—Upon notification, accompanied by supporting documentation, from the Governor of a State that the Reid vapor pressure limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the Reid vapor pressure limitation established by paragraph (4), the Reid vapor pressure limitation established by paragraph (1) to all fuel blends containing gasoline and 10 percent denatured anhydrous ethanol that are sold, offered for sale, dispensed, supplied, offered for supply, transported or introduced into commerce in the area during the high ozone season.

''(B) DEADLINE FOR PROMULGATION.—The Administrator shall promulgate regulations under subparagraph (A) not later than 90 days after the date of receipt of a notification from a Governor under that subparagraph.

''(C) EFFECTIVE DATE.—

''(i) IN GENERAL.—With respect to an area in a State for which the Governor submits a notification under subparagraph (A), the regulations under that subparagraph shall take effect on the later of—

''(I) the first day of the first high ozone season for the area that begins after the date of receipt of the notification; or

''(II) 1 year after the date of receipt of the notification.

''(ii) EXTENSION OF EFFECTIVE DATE BASED ON DETERMINATION OF INSUFFICIENT SUPPLY.—

''(I) IN GENERAL.—If, after receipt of a notification with respect to an area from a Governor of a State under subparagraph (A), the Administrator determines, on the Administrator's own motion or on petition of any person and after consultation with the Secretary of Energy, that the promulgation of regulations described in subparagraph (A) would result in an insufficient supply of gasoline in the State, the Administrator, by regulation—

''(aa) shall extend the effective date of the regulations under clause (i) with respect to the area for not more than 1 year; and

''(bb) may renew the extension under item (aa) for 2 additional periods, each of which shall not exceed 1 year.

''(II) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.''.

(d) SURVEY OF RENEWABLE FUEL MARKET.—

(1) SURVEY AND REPORT.—Not later than December 1, 2005, and annually thereafter, the Administrator shall—

(A) conduct, with respect to each conventional gasoline use area and each reformulated gasoline use area in each State, a survey to determine the market shares of—

(i) conventional gasoline containing ethanol;

(ii) reformulated gasoline containing ethanol;

(iii) conventional gasoline containing renewable fuel; and

(iv) reformulated gasoline containing renewable fuel; and

(B) submit to Congress, and make publicly available, a report on the results of the survey under subparagraph (A).

(2) RECORDKEEPING AND REPORTING REQUIREMENTS.—The Administrator may require any refiner, blender, importer, or distributor to keep such records and make such reports as are necessary to ensure that the survey conducted under paragraph (1) is accurate. The Administrator shall rely, to the extent practicable, on existing reporting and recordkeeping requirements to avoid duplicative requirements.

(3) APPLICABLE LAW.—Activities carried out under this subsection shall be conducted in a manner designed to protect confidentiality of individual responses.

(e) RENEWABLE FUELS SAFE HARBOR.—

(1) IN GENERAL.—Notwithstanding any other provision of federal or state law, no renewable fuel, as defined by this Act, used or intended to be used as a motor vehicle fuel, nor any motor vehicle fuel containing such renewable fuel, shall be deemed defective in design or manufacture by virtue of the fact that it is, or contains, such a renewable fuel, if it does not violate a control or prohibition imposed by the Administrator under section 211 of the Clean Air Act, as amended by this Act, and the manufacturer is in compliance with all requests for information under section 211(b) of the Clean Air Act, as amended by this Act. In the event that the safe harbor under this section does not apply, the existence of a design defect or manufacturing defect shall be determined under otherwise applicable law.

(2) EFFECTIVE DATE.—This section shall be effective as of the date of enactment and shall apply with respect to all claims filed on or after that date.

Subtitle C—Additional Fuel Efficiency Measures

SEC. 821. FUEL EFFICIENCY OF THE FEDERAL FLEET OF AUTOMOBILES.

Section 32917 of title 49, United States Code, is amended to read as follows:

''§ 32917. Standards for executive agency automobiles

''(a) BASELINE AVERAGE FUEL ECONOMY.—The head of each executive agency shall determine, for all automobiles in the agency's fleet of automobiles that were leased or bought as a new vehicle in fiscal year 1999, the average fuel economy for such automobiles. For the purposes of this section, the average fuel economy so determined shall be the baseline average fuel economy for the agency's fleet of automobiles.

''(b) INCREASE OF AVERAGE FUEL ECONOMY.—The head of an executive agency shall manage the procurement of automobiles for that agency in such a manner that—

''(1) not later than September 30, 2003, the average fuel economy of the new automobiles in the agency's fleet of automobiles is not less than 1 mile per gallon higher than the baseline average fuel economy determined under subsection (a) for that fleet; and

''(2) not later than September 30, 2005, the average fuel economy of the new automobiles in the agency's fleet of automobiles is not less than 3 miles per gallon higher than the baseline average fuel economy determined under subsection (a) for that fleet.

''(c) CALCULATION OF AVERAGE FUEL ECONOMY.—Average fuel economy shall be calculated for the purposes of this section in accordance with guidance which the Secretary of Transportation shall prescribe for the implementation of this section.

''(d) DEFINITIONS.—In this section:

''(1) The term 'automobile' does not include any vehicle designed for combat-related missions, law enforcement work, or emergency rescue work.

''(2) The term 'executive agency' has the meaning given that term in section 105 of title 5.

''(3) The term 'new automobile', with respect to the fleet of automobiles of an executive agency, means an automobile that is leased for at least 60 consecutive days or bought, by or for the agency, after September 30, 1999.''.

SEC. 822. ASSISTANCE FOR STATE PROGRAMS TO RETIRE FUEL-INEFFICIENT MOTOR VEHICLES.

(a) ESTABLISHMENT.—The Secretary shall establish a program, to be known as the ''National Motor Vehicle Efficiency Improvement Program.'' Under this program, the Secretary shall provide grants to States to operate programs to offer owners of passenger automobiles and light-duty trucks manufactured in model years more than 15 years prior to the fiscal year in which appropriations are made under subsection (d) financial incentives to voluntarily—

(1) scrap such automobiles and to replace them with automobiles with higher fuel efficiency; or

(2) repair such vehicles to improve their fuel economy.

(b) STATE PLAN.—Not later than 180 days after the date of enactment of an appropriations act containing funds authorized under subsection (d), to be eligible to receive funds under the program, the Governor of a State shall submit to the Secretary a plan to carry out a program under this subtitle in that State.

(c) ELIGIBILITY CRITERIA.—The Secretary shall approve a State plan and provide the funds under subsection (d), if the State plan—

(1) for voluntary vehicle scrappage programs—

(A) requires that all passenger automobiles and light-duty trucks turned in be scrapped;

(B) requires that prior to scrapping a vehicle, the state provide public notification of the intent to scrap and allow for the salvage of valuable parts from the vehicle;

(C) requires that all passenger automobiles and light-duty trucks turned in be currently registered in the State in order to be eligible;

(D) requires that all passenger automobiles and light-duty trucks turned in be operational at the time that they are turned in;

(E) restricts automobile owners (except not-for-profit organizations) from turning in more than one passenger automobile and one light-duty truck in a 12-month period;

(F) provides an appropriate payment to the person recycling the scrapped passenger automobile or light-duty truck for each turned-in passenger automobile or light-duty truck;

(G) provides a minimum payment to the automobile owner for each passenger automobile and light-duty truck turned in;

(H) provides, in addition to the payment under subparagraph (G), an additional credit that may be redeemed by the owner of the turned-in passenger automobile or light-duty truck at the time of purchase of new fuel-efficient automobile; and

(I) estimates the fuel efficiency benefits of the program, and reports the estimated results to the Secretary annually; and

(2) for voluntary vehicle repair programs—

(A) requires the vehicle owner contribute at least 20 percent of the cost of the repairs;

(B) sets a ceiling beyond which the vehicle owner is responsible for the cost of repairs;

(C) allows the vehicle owner to opt out of the program if the cost of the repairs is considered to be too great; and

(D) estimates the fuel economy benefits of the program and reports the estimated results to the Secretary annually.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are hereby authorized to be appropriated to the Secretary to carry out this section such sums as may be necessary, to remain available until expended.

(e) ALLOCATION FORMULA.—The amounts appropriated pursuant to subsection (d) shall be allocated among the States on the basis of the population of the States 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 that the Secretary needs to compute shares under this subsection.

(f) DEFINITIONS.—In this section:

(1) AUTOMOBILE.—The term ''automobile'' has the meaning given such term in section 32901(3) of title 49, United States Code.

(2) FUEL-EFFICIENT AUTOMOBILE.—

(A) The term ''fuel-efficient automobile'' means a passenger automobile or a light-duty truck that has an average fuel economy greater than the average fuel economy standard prescribed pursuant to section 32902 of title 49, United States Code, or other law, applicable to such passenger automobile or light-duty truck.

(B) The term ''average fuel economy'' has the meaning given such term in section 32901(5) of title 49, United States Code.

(C) The term ''average fuel economy standard'' has the meaning given such term in section 32901(6) of title 49, United States Code.

(D) The term ''fuel economy'' has the meaning given such term in section 32901(10) of title 49, United States Code.

(3) LIGHT-DUTY TRUCK.—The term ''light-duty truck'' means an automobile that is not a passenger automobile. Such term shall include a pickup truck, a van, or a four-wheel-drive general utility vehicle, as those terms are defined in section 600.002–85 of title 40, Code of Federal Regulations.

(4) PASSENGER AUTOMOBILE.—The term ''passenger automobile'' has the meaning given such term by section 32901(16) of title 49, United States Code.

(5) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(6) STATE.—The term ''State'' means any of the several States and the District of Columbia.

SEC. 823. IDLING REDUCTION SYSTEMS IN HEAVY DUTY VEHICLES.

Title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.) is amended by adding at the end the following:

''PART K—REDUCING TRUCK IDLING

''SEC. 400AAA. REDUCING TRUCK IDLING.

''(a) STUDY.—Not later than 18 months after the date of enactment of this section, the Secretary shall, in consultation with the Secretary of Transportation, commence a study to analyze the potential fuel savings resulting from long duration idling of main drive engines in heavy-duty vehicles.

''(b) REGULATIONS.—Upon completion of the study under subsection (a), the Secretary may issue regulations requiring the installation of idling reduction systems on all newly manufactured heavy duty vehicles.

''(c) DEFINITIONS.—As used in this section:

''(1) The term 'heavy-duty vehicle' means a vehicle that has a gross vehicle weight rating greater than 8,500 pounds and is powered by a diesel engine.

''(2) The term 'idling reduction system' means a device or system of devices used to reduce long duration idling of a diesel engine in a vehicle.

''(3) The term 'long duration idling' means the operation of a main drive engine of a heavy-duty vehicle for a period of more than 15 consecutive minutes when the main drive engine is not engaged in gear, except that such term does not include idling as a result of traffic congestion or other impediments to the movement of a heavy-duty vehicle.

''(4) The term 'vehicle' has the meaning given such term in section 4 of title 1, United States Code.''.

Subtitle D—Federal Reformulated Fuels

SEC. 831. SHORT TITLE.

This subtitle may be cited as the ''Federal Reformulated Fuels Act of 2002''.

SEC. 832. LEAKING UNDERGROUND STORAGE TANKS.

(a) USE OF LUST FUNDS FOR REMEDIATION OF CONTAMINATION FROM ETHER FUEL ADDITIVES.—Section 9003(h) of the Solid Waste Disposal Act (42 U.S.C. 6991b(h)) is amended—

(1) in paragraph (7)(A)—

(A) by striking ''paragraphs (1) and (2) of this subsection'' and inserting ''paragraphs (1), (2), and (12)''; and

(B) by inserting ''and section 9010'' before ''if''; and

(2) by adding at the end the following:

''(12) REMEDIATION OF CONTAMINATION FROM ETHER FUEL ADDITIVES.—

''(A) IN GENERAL.—The Administrator and the States may use funds made available under section 9013(1) to carry out corrective actions with respect to a release of methyl tertiary butyl ether or other ether fuel additive that presents a threat to human health, welfare, or the environment.

''(B) APPLICABLE AUTHORITY.—Subparagraph (A) shall be carried out—

''(i) in accordance with paragraph (2), except that a release with respect to which a corrective action is carried out under subparagraph (A) shall not be required to be from an underground storage tank; and

''(ii) in the case of a State, in accordance with a cooperative agreement entered into by the Administrator and the State under paragraph (7).''.

(b) RELEASE PREVENTION AND COMPLIANCE.—Subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) is amended by striking section 9010 and inserting the following:

''SEC. 9010. RELEASE PREVENTION AND COMPLIANCE.

''Funds made available under section 9013(2) from the Leaking Underground Storage Tank Trust Fund may be used for conducting inspections, or for issuing orders or bringing actions under this subtitle—

''(1) by a State (pursuant to section 9003(h)(7)) acting under—

''(A) a program approved under section 9004; or

''(B) State requirements regulating underground storage tanks that are similar or identical to this subtitle, as determined by the Administrator; and

''(2) by the Administrator, acting under this subtitle or a State program approved under section 9004.

''SEC. 9011. BEDROCK BIOREMEDIATION.

''The Administrator shall establish, at an institution of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) with established expertise in bioremediation of contaminated bedrock aquifers, a resource center—

''(1) to conduct research concerning bioremediation of methyl tertiary butyl ether in contaminated underground aquifers, including contaminated bedrock; and

''(2) to provide for States a technical assistance clearinghouse for information concerning innovative technologies for bioremediation described in paragraph (1).

''SEC. 9012. SOIL REMEDIATION.

''The Administrator may establish a program to conduct research concerning remediation of methyl tertiary butyl ether contamination of soil, including granitic or volcanic soil.

''SEC. 9013. AUTHORIZATION OF APPROPRIATIONS.

''In addition to amounts made available under section 2007(f), there are authorized to be appropriated from the Leaking Underground Storage Tank Trust Fund, notwithstanding section 9508(c)(1) of the Internal Revenue Code of 1986—

''(1) to carry out section 9003(h)(12), $200,000,000 for fiscal year 2003, to remain available until expended;

''(2) to carry out section 9010—

''(A) $50,000,000 for fiscal year 2003; and

''(B) $30,000,000 for each of fiscal years 2004 through 2008;

''(3) to carry out section 9011—

''(A) $500,000 for fiscal year 2003; and

''(B) $300,000 for each of fiscal years 2004 through 2008; and

''(4) to carry out section 9012—

''(A) $100,000 for fiscal year 2003; and

''(B) $50,000 for each of fiscal years 2004 through 2008.

(c) TECHNICAL AMENDMENTS.—

(1) Section 1001 of the Solid Waste Disposal Act (42 U.S.C. prec. 6901) is amended by striking the item relating to section 9010 and inserting the following:

''Sec. 9010. Release prevention and compliance.
''Sec. 9011. Bedrock bioremediation.
''Sec. 9012. Soil remediation.
''Sec. 9013. Authorization of appropriations.''.

(2) Section 9001(3)(A) of the Solid Waste Disposal Act (42 U.S.C. 6991(3)(A)) is amended by striking ''sustances'' and inserting ''substances''.

(3) Section 9003(f)(1) of the Solid Waste Disposal Act (42 U.S.C. 6991b(f)(1)) is amended by striking ''subsection (c) and (d) of this section'' and inserting ''subsections (c) and (d)''.

(4) Section 9004(a) of the Solid Waste Disposal Act (42 U.S.C. 6991c(a)) is amended in the second sentence by striking ''referred to'' and all that follows and inserting ''referred to in subparagraph (A) or (B), or both, of section 9001(2).''.

(5) Section 9005 of the Solid Waste Disposal Act (42 U.S.C. 6991d) is amended—

(A) in subsection (a), by striking ''study taking'' and inserting ''study, taking'';

(B) in subsection (b)(1), by striking ''relevent'' and inserting ''relevant''; and

(C) in subsection (b)(4), by striking ''Evironmental'' and inserting ''Environmental''.

SEC. 833. AUTHORITY FOR WATER QUALITY PROTECTION FROM FUELS.

(a) FINDINGS.—Congress finds that—

(1) since 1979, methyl tertiary butyl ether (referred to in this section as ''MTBE'') has been used nationwide at low levels in gasoline to replace lead as an octane booster or anti-knocking agent;

(2) Public Law 101–549 (commonly known as the ''Clean Air Act Amendments of 1990'') (42 U.S.C. 7401 et seq.) established a fuel oxygenate standard under which reformulated gasoline must contain at least 2 percent oxygen by weight;

(3) at the time of the adoption of the fuel oxygen standard, Congress was aware that significant use of MTBE could result from the adoption of that standard, and that the use of MTBE would likely be important to the cost-effective implementation of that program;

(4) Congress is aware that gasoline and its component additives have leaked from storage tanks, with consequences for water quality;

(5) the fuel industry responded to the fuel oxygenate standard established by Public Law 101–549 by making substantial investments in—

(A) MTBE production capacity; and

(B) systems to deliver MTBE-containing gasoline to the marketplace;

(6) when leaked or spilled into the environment, MTBE may cause serious problems of drinking water quality;

(7) in recent years, MTBE has been detected in water sources throughout the United States;

(8) MTBE can be detected by smell and taste at low concentrations;

(9) while small quantities of MTBE can render water supplies unpalatable, the precise human health effects of MTBE consumption at low levels are yet unknown;

(10) in the report entitled ''Achieving Clean Air and Clean Water: The Report of the Blue Ribbon Panel on Oxygenates in Gasoline'' and dated September 1999, Congress was urged—

(A) to eliminate the fuel oxygenate standard;

(B) to greatly reduce use of MTBE; and

(C) to maintain the environmental performance of reformulated gasoline;

(11) Congress has—

(A) reconsidered the relative value of MTBE in gasoline; and

(B) decided to eliminate use of MTBE as a fuel additive;

(12) the timeline for elimination of use of MTBE as a fuel additive must be established in a manner that achieves an appropriate balance among the goals of—

(A) environmental protection;

(B) adequate energy supply; and

(C) reasonable fuel prices; and

(13) it is appropriate for Congress to provide some limited transition assistance—

(A) to merchant producers of MTBE who produced MTBE in response to a market created by the oxygenate requirement contained in the Clean Air Act; and

(B) for the purpose of mitigating any fuel supply problems that may result from elimination of a widely-used fuel additive.

(b) PURPOSES.—The purposes of this section are—

(1) to eliminate use of MTBE as a fuel oxygenate; and

(2) to provide assistance to merchant producers of MTBE in making the transition from producing MTBE to producing other fuel additives.

(c) AUTHORITY FOR WATER QUALITY PROTECTION FROM FUELS.—Section 211(c) of the Clean Air Act (42 U.S.C. 7545(c)) is amended—

(1) in paragraph (1)(A)—

(A) by inserting ''fuel or fuel additive or'' after ''Administrator any''; and

(B) by striking ''air pollution which'' and inserting ''air pollution, or water pollution, that'';

(2) in paragraph (4)(B), by inserting ''or water quality protection,'' after ''emission control,''; and

(3) by adding at the end the following:

''(5) PROHIBITION ON USE OF MTBE.—

''(A) IN GENERAL.—Subject to subparagraph (E), not later than 4 years after the date of enactment of this paragraph, the use of methyl tertiary butyl ether in motor vehicle fuel in any State other than a State described in subparagraph (C) is prohibited.

''(B) REGULATIONS.—The Administrator shall promulgate regulations to effect the prohibition in subparagraph (A).

''(C) STATES THAT AUTHORIZE USE.—A State described in this subparagraph is a State that submits to the Administrator a notice that the State authorizes use of methyl tertiary butyl ether in motor vehicle fuel sold or used in the State.

''(D) PUBLICATION OF NOTICE.—The Administrator shall publish in the Federal Register each notice submitted by a State under subparagraph (B).

''(E) TRACE QUANTITIES.—In carrying out subparagraph (A), the Administrator may allow trace quantities of methyl tertiary butyl ether, not to exceed 0.5 percent by volume, to be present in motor vehicle fuel in cases that the Administrator determines to be appropriate.

''(6) MTBE MERCHANT PRODUCER CONVERSION ASSISTANCE.—

''(A) IN GENERAL.—

''(i) GRANTS.—The Secretary of Energy, in consultation with the Administrator, may make grants to merchant producers of methyl tertiary butyl ether in the United States to assist the producers in the conversion of eligible production facilities described in subparagraph (C) to the production of iso-octane and alkylates.

''(ii) DETERMINATION.—The Administrator, in consultation with the Secretary of Energy, may determine that transition assistance for the production of iso-octane and alkylates is inconsistent with the provisions of subparagraph (B) and, on that basis, may deny applications for grants authorized by this provision.

''(B) The Secretary of Energy, in consultation with the Administrator, may also further make grants to merchant producers of MTBE in the United States to assist the producers in the conversion of eligible production facilities described in subparagraph (C) to the production of such other fuel additives that, consistent with 211(c)—

''(i) unless the Administrator determines that such fuel additives may reasonably be anticipated to endanger public health or the environment;

''(ii) have been registered and have been tested or are being tested in accordance with the requirements of this section; and

''(iii) will contribute to replacing gasoline volumes lost as a result of paragraph (5).

''(C) ELIGIBLE PRODUCTION FACILITIES.—A production facility shall be eligible to receive a grant under this paragraph if the production facility—

''(i) is located in the United States; and

''(ii) produced methyl tertiary butyl ether for consumption in nonattainment areas during the period—

''(I) beginning on the date of enactment of this paragraph; and

''(II) ending on the effective date of the prohibition on the use of methyl tertiary butyl ether under paragraph (5).

''(D) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this paragraph $250,000,000 for each of fiscal years 2003 through 2005.''.

(d) NO EFFECT ON LAW CONCERNING STATE AUTHORITY.—The amendments made by subsection (c) have no effect on the law in effect on the day before the date of enactment of this Act regarding the authority of States to limit the use of methyl tertiary butyl ether in motor vehicle fuel.

SEC. 834. ELIMINATION OF OXYGEN CONTENT REQUIREMENT FOR REFORMULATED GASOLINE.

(a) ELIMINATION.—

(1) IN GENERAL.—Section 211(k) of the Clean Air Act (42 U.S.C. 7545(k)) is amended—

(A) in paragraph (2)—

(i) in the second sentence of subparagraph (A), by striking ''(including the oxygen content requirement contained in subparagraph (B))'';

(ii) by striking subparagraph (B); and

(iii) by redesignating subparagraphs (C) and (D) as subparagraphs (B) and (C), respectively;

(B) in paragraph (3)(A), by striking clause (v);

(C) in paragraph (7)—

(i) in subparagraph (A)—

(I) by striking clause (i); and

(II) by redesignating clauses (ii) and (iii) as clauses (i) and (ii), respectively; and

(ii) in subparagraph (C)—

(I) by striking clause (ii); and

(II) by redesignating clause (iii) as clause (ii); and

(2) EFFECTIVE DATE.—The amendments made by paragraph (1) take effect 270 days after the date of enactment of this Act, except that such amendments shall take effect upon enactment in any State that has received a waiver under section 209(b) of the Clean Air Act.

(b) MAINTENANCE OF TOXIC AIR POLLUTANT EMISSION REDUCTIONS.—Section 211(k)(1) of the Clean Air Act (42 U.S.C. 7545(k)(1)) is amended—

(1) by striking ''Within 1 year after the enactment of the Clean Air Act Amendments of 1990,'' and inserting the following:

''(A) IN GENERAL.—Not later than November 15, 1991,''; and

(2) by adding at the end the following:

''(B) MAINTENANCE OF TOXIC AIR POLLUTANT EMISSIONS REDUCTIONS FROM REFORMULATED GASOLINE.—

''(i) DEFINITIONS.—In this subparagraph:

''(I) PADD.—The term 'PADD' means a Petroleum Administration for Defense District.

''(ii) REGULATIONS REGARDING EMISSIONS OF TOXIC AIR POLLUTANTS.—Not later than 270 days after the date of enactment of this subparagraph, the Administrator shall establish, for each refinery or importer (other than a refinery or importer in a State that has received a waiver under section 209(b) with regard to gasoline produced for use in that state), standards for toxic air pollutants from use of the reformulated gasoline produced or distributed by the refinery or importer that maintain the reduction of the average annual aggregate emissions of toxic air pollutants for reformulated gasoline produced or distributed by the refinery or importer during calendar years 1999 and 2000, determined on the basis of data collected by the Administrator with respect to the refinery or importer.

(iii) STANDARDS APPLICABLE TO SPECIFIC REFINERIES OR IMPORTERS.—

''(I) APPLICABILITY OF STANDARDS.—For any calendar year, the standards applicable to a refinery or importer under clause (ii) shall apply to the quantity of gasoline produced or distributed by the refinery or importer in the calendar year only to the extent that the quantity is less than or equal to the average annual quantity of reformulated gasoline produced or distributed by the refinery or importer during calendar years 1999 and 2000.

''(II) APPLICABILITY OF OTHER STANDARDS.—For any calendar year, the quantity of gasoline produced or distributed by a refinery or importer that is in excess of the quantity subject to subclause (I) shall be subject to standards for toxic air pollutants promulgated under subparagraph (A) and paragraph (3)(B).

''(iv) CREDIT PROGRAM.—The Administrator shall provide for the granting and use of credits for emissions of toxic air pollutants in the same manner as provided in paragraph (7).

''(v) REGIONAL PROTECTION OF TOXICS REDUCTION BASELINES.—

''(I) IN GENERAL.—Not later than 60 days after the date of enactment of this subparagraph, and not later than April 1 of each calendar year that begins after that date of enactment, the Administrator shall publish in the Federal Register a report that specifies, with respect to the previous calendar year—

''(aa) the quantity of reformulated gasoline produced that is in excess of the average annual quantity of reformulated gasoline produced in 1999 and 2000; and

''(bb) the reduction of the average annual aggregate emissions of toxic air pollutants in each PADD, based on retail survey data or data from other appropriate sources.

''(II) EFFECT OF FAILURE TO MAINTAIN AGGREGATE TOXICS REDUCTIONS.—If, in any calendar year, the reduction of the average annual aggregate emissions of toxic air pollutants in a PADD fails to meet or exceed the reduction of the average annual aggregate emissions of toxic air pollutants in the PADD in calendar years 1999 and 2000, the Administrator, not later than 90 days after the date of publication of the report for the calendar year under subclause (I), shall—

''(aa) identify, to the maximum extent practicable, the reasons for the failure, including the sources, volumes, and characteristics of reformulated gasoline that contributed to the failure; and

''(bb) promulgate revisions to the regulations promulgated under clause (ii), to take effect not earlier than 180 days but not later than 270 days after the date of promulgation, to provide that, notwithstanding clause (iii)(II), all reformulated gasoline produced or distributed at each refinery or importer shall meet the standards applicable under clause (iii) not later than April 1 of the year following the report in subclause (II) and for subsequent years.

''(vi) REGULATIONS TO CONTROL HAZARDOUS AIR POLLUTANTS FROM MOTOR VEHICLES AND MOTOR VEHICLE FUELS.—Not later than July 1, 2004, the Administrator shall promulgate final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels, as provided for in section 80.1045 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this subparagraph).''.

(c) CONSOLIDATION IN REFORMULATED GASOLINE REGULATIONS.—Not later than 180 days after the date of enactment of this Act, the Administrator shall revise the reformulated gasoline regulations under subpart D of part 80 of title 40, Code of Federal Regulations, to

consolidate the regulations applicable to VOC-Control Regions 1 and 2 under section 80.41 of that title by eliminating the less stringent requirements applicable to gasoline designated for VOC-Control Region 2 and instead applying the more stringent requirements applicable to gasoline designated for VOC-Control Region 1.

(d) SAVINGS CLAUSE.—Nothing in this section is intended to affect or prejudice any legal claims or actions with respect to regulations promulgated by the Administrator prior to enactment of this Act regarding emissions of toxic air pollutants from motor vehicles.

(e) DETERMINATION REGARDING A STATE PETITION.—Section 211(k) of the Clean Air Act (42 U.S.C. 7545(k)) is amended by inserting after paragraph (10) the following:

''(11) DETERMINATION REGARDING A STATE PETITION.—

''(A) IN GENERAL.—Notwithstanding any other provision of this section, not less than thirty days after enactment of this paragraph the Administrator must determine the adequacy of any petition received from a Governor of a State to exempt gasoline sold in that State from the requirements of (k)(2)(B).

''(B) If the determination in (A) is not made within thirty days of enactment of this paragraph, the petition shall be deemed approved.''.

SEC. 835. PUBLIC HEALTH AND ENVIRONMENTAL IMPACTS OF FUELS AND FUEL ADDITIVES.

Section 211(b) of the Clean Air Act (42 U.S.C. 7545(b)) is amended—

(1) in paragraph (2)—

(A) by striking ''may also'' and inserting ''shall, on a regular basis,''; and

(B) by striking subparagraph (A) and inserting the following:

''(A) to conduct tests to determine potential public health and environmental effects of the fuel or additive (including carcinogenic, teratogenic, or mutagenic effects); and''; and

(2) by adding at the end the following:

''(4) STUDY ON CERTAIN FUEL ADDITIVES AND BLENDSTOCKS.—

''(A) IN GENERAL.—Not later than 2 years after the date of enactment of this paragraph, the Administrator shall—

''(i) conduct a study on the effects on public health, air quality, and water resources of increased use of, and the feasibility of using as substitutes for methyl tertiary butyl ether in gasoline—

''(I) ethyl tertiary butyl ether;

''(II) tertiary amyl methyl ether;

''(III) di-isopropyl ether;

''(IV) tertiary butyl alcohol;

''(V) other ethers and heavy alcohols, as determined by then Administrator;

''(VI) ethanol;

''(VII) iso-octane; and

''(VIII) alkylates; and

''(ii) conduct a study on the effects on public health, air quality, and water resources of the adjustment for ethanol-blended reformulated gasoline to the VOC performance requirements otherwise applicable under sections 211(k)(1) and 211(k)(3) of the Clean Air Act.

''(iii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of these studies.

''(B) CONTRACTS FOR STUDY.—In carrying out this paragraph, the Administrator may enter into 1 or more contracts with nongovernmental entities including but not limited to National Energy Laboratories and institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)).''.

SEC. 836. ANALYSES OF MOTOR VEHICLE FUEL CHANGES.

Section 211 of the Clean Air Act (42 U.S.C. 7545) (as amended by section 819(a)) is amended by inserting after subsection (o) the following:

''(p) ANALYSES OF MOTOR VEHICLE FUEL CHANGES AND EMISSIONS MODEL.—

''(1) ANTI-BACKSLIDING ANALYSIS.—

''(A) DRAFT ANALYSIS.—Not later than 4 years after the date of enactment of this paragraph, the Administrator shall publish for public comment a draft analysis of the changes in emissions of air pollutants and air quality due to the use of motor vehicle fuel and fuel additives resulting from implementation of the amendments made by the Federal Reformulated Fuels Act of 2002.

''(B) FINAL ANALYSIS.—After providing a reasonable opportunity for comment but not later than 5 years after the date of enactment of this paragraph, the Administrator shall publish the analysis in final form.

''(2) EMISSIONS MODEL.—For the purposes of this subsection, as soon as the necessary data are available, the Administrator shall develop and finalize an emissions model that reasonably reflects the effects of gasoline characteristics or components on emissions from vehicles in the motor vehicle fleet during calendar year 2005.''.

SEC. 837. ADDITIONAL OPT-IN AREAS UNDER REFORMULATED GASOLINE PROGRAM.

Section 211(k)(6) of the Clean Air Act (42 U.S.C. 7545(k)(6)) is amended—

(1) by striking ''(6) OPT-IN AREAS.—(A) Upon'' and inserting the following:

''(6) OPT-IN AREAS.—

''(A) CLASSIFIED AREAS.—

''(i) IN GENERAL.—Upon'';

(2) in subparagraph (B), by striking ''(B) If'' and inserting the following:

''(ii) EFFECT OF INSUFFICIENT DOMESTIC CAPACITY TO PRODUCE REFORMULATED GASOLINE.—If'';

(3) in subparagraph (A)(ii) (as redesignated by paragraph (2))—

(A) in the first sentence, by striking ''subparagraph (A)'' and inserting ''clause (i)''; and

(B) in the second sentence, by striking ''this paragraph'' and inserting ''this subparagraph''; and

(4) by adding at the end the following:

''(B) OZONE TRANSPORT REGION.—

''(i) APPLICATION OF PROHIBITION.—

''(I) IN GENERAL.—In addition to the provisions of subparagraph (A), upon the application of the Governor of a State in the ozone transport region established by section 184(a), the Administrator, not later than 180 days after the date of receipt of the application, shall apply the prohibition specified in paragraph (5) to any area in the State (other than an area classified as a marginal, moderate, serious, or severe ozone nonattainment area under subpart 2 of part D of title I) unless the Administrator determines under clause (iii) that there is insufficient capacity to supply reformulated gasoline.

''(II) PUBLICATION OF APPLICATION.—As soon as practicable after the date of receipt of an application under subclause (I), the Administrator shall publish the application in the Federal Register.

''(ii) PERIOD OF APPLICABILITY.—Under clause (i), the prohibition specified in paragraph (5) shall apply in a State—

''(I) commencing as soon as practicable but not later than 2 years after the date of approval by the Administrator of the application of the Governor of the State; and

''(II) ending not earlier than 4 years after the commencement date determined under subclause (I).

''(iii) EXTENSION OF COMMENCEMENT DATE BASED ON INSUFFICIENT CAPACITY.—

''(I) IN GENERAL.—If, after receipt of an application from a Governor of a State under clause (i), the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient capacity to supply reformulated gasoline, the Administrator, by regulation—

''(aa) shall extend the commencement date with respect to the State under clause (ii)(I) for not more than 1 year; and

''(bb) may renew the extension under item (aa) for 2 additional periods, each of which shall not exceed 1 year.

''(II) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.''.

SEC. 838. FEDERAL ENFORCEMENT OF STATE FUELS REQUIREMENTS.

Section 211(c)(4)(C) of the Clean Air Act (42 U.S.C. 7545(c)(4)(C)) is amended—

(1) by striking ''(C) A State'' and inserting the following:

''(C) AUTHORITY OF STATE TO CONTROL FUELS AND FUEL ADDITIVES FOR REASONS OF NECESSITY.—

''(i) IN GENERAL.—A State''; and

(2) by adding at the end the following:

''(ii) ENFORCEMENT BY THE ADMINISTRATOR.—In any case in which a State prescribes and enforces a control or prohibition under clause (i), the Administrator, at the request of the State, shall enforce the control or prohibition as if the control or prohibition had been adopted under the other provisions of this section.''.

SEC. 839. FUEL SYSTEM REQUIREMENTS HARMONIZATION STUDY.

(a) STUDY.—

(1) IN GENERAL.—The Administrator of the Environmental Protection Agency and the Secretary of Energy shall jointly conduct a study of Federal, State, and local requirements concerning motor vehicle fuels, including—

(A) requirements relating to reformulated gasoline, volatility (measured in Reid vapor pressure), oxygenated fuel, and diesel fuel; and

(B) other requirements that vary from State to State, region to region, or locality to locality.

(2) REQUIRED ELEMENTS.—The study shall assess—

(A) the effect of the variety of requirements described in paragraph (1) on the supply, quality, and price of motor vehicle fuels available to the consumer;

(B) the effect of the requirements described in paragraph (1) on achievement of—

(i) national, regional, and local air quality standards and goals; and

(ii) related environmental and public health protection standards and goals;

(C) the effect of Federal, State, and local motor vehicle fuel regulations, including multiple motor vehicle fuel requirements, on—

(i) domestic refineries;

(ii) the fuel distribution system; and

(iii) industry investment in new capacity;

(D) the effect of the requirements described in paragraph (1) on emissions from vehicles, refineries, and fuel handling facilities;

(E) the feasibility of developing national or regional motor vehicle fuel slates for the 48 contiguous States that, while protecting and improving air quality at the national, regional, and local levels, could—

(i) enhance flexibility in the fuel distribution infrastructure and improve fuel fungibility;

(ii) reduce price volatility and costs to consumers and producers;

(iii) provide increased liquidity to the gasoline market; and

(iv) enhance fuel quality, consistency, and supply; and

(F) the feasibility of providing incentives, and the need for the development of national standards necessary, to promote cleaner burning motor vehicle fuel.

(b) REPORT.—

(1) IN GENERAL.—Not later than June 1, 2006, the Administrator of the Environmental Protection Agency and the Secretary of Energy shall submit to Congress a report on the results of the study conducted under subsection (a).

(2) RECOMMENDATIONS.—

(A) IN GENERAL.—The report shall contain recommendations for legislative and administrative actions that may be taken—

(i) to improve air quality;

(ii) to reduce costs to consumers and producers; and

(iii) to increase supply liquidity.

(B) REQUIRED CONSIDERATIONS.—The recommendations under subparagraph (A) shall take into account the need to provide advance notice of required modifications to refinery and fuel distribution systems in order to ensure an adequate supply of motor vehicle fuel in all States.

(3) CONSULTATION.—In developing the report, the Administrator of the Environmental Protection Agency and the Secretary of Energy shall consult with—

(A) the Governors of the States;

(B) automobile manufacturers;

(C) motor vehicle fuel producers and distributors; and

(D) the public.

TITLE IX—ENERGY EFFICIENCY AND ASSISTANCE TO LOW INCOME CONSUMERS

Subtitle A—Low Income Assistance and State Energy Programs

SEC. 901. INCREASED FUNDING FOR LIHEAP, WEATHERIZATION ASSISTANCE, AND STATE ENERGY GRANTS.

(a) LIHEAP.—(1) Section 2602(b) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621(b)) is amended by striking the first sentence and inserting the following: ''There are authorized to be appropriated to carry out the provisions of this title (other than section 2607A), $3,400,000,000 for each of fiscal years 2003 through 2005.''.

(2) Section 2602(e) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621(e) is amended by striking ''$600,000,000'' and inserting ''$1,000,000,000''.

(3) Section 2609A(a) of the Low-Income Energy Assistance Act of 1981 (42 U.S.C. 8628a(a)) is amended by striking ''not more than $300,000'' and inserting: ''not more than $750,000''.

(b) WEATHERIZATION ASSISTANCE.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking ''for fiscal years 1999 through 2003 such sums as may be necessary.'' and inserting: ''$325,000,000 for fiscal year 2003, $400,000,000 for fiscal year 2004, and $500,000,000 for fiscal year 2005.''.

SEC. 902. STATE ENERGY PROGRAMS.

(a) STATE ENERGY CONSERVATION PLANS.—Section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322)) is amended by adding at the end the following:

''(g) The Secretary shall, at least once every three years, invite the Governor of each State to review and, if necessary, revise the energy conservation plan of the State submitted under subsection (b) or (e). Such reviews should consider the energy conservation plans of other States within the region, and identify opportunities and actions that may be carried out in pursuit of common energy conservation goals.''.

(b) STATE ENERGY CONSERVATION GOALS.—Section 364 of the Energy Policy and Conservation Act (42 U.S.C. 6324) is amended to read as follows:

''SEC. 364. Each State energy conservation plan with respect to which assistance is made available under this part on or after the date of enactment of the Energy Policy Act of 2002 shall contain a goal, consisting of an improvement of 25 percent or more in the efficiency of use of energy in the State concerned in calendar year 2010 as compared to calendar year 1990, and may contain interim goals.''.

(c) STATE ENERGY CONSERVATION GRANTS.—Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking ''for fiscal years 1999 through 2003 such sums as may be necessary.'' and inserting: ''$100,000,000 for each of fiscal years 2003 and 2004; $125,000,000 for fiscal year 2005; and such sums as may be necessary for each fiscal year thereafter.''.

SEC. 903. ENERGY EFFICIENT SCHOOLS.

(a) ESTABLISHMENT.—There is established in the Department of Energy the High Performance Schools Program (in this section referred to as the ''Program'').

(b) GRANTS.—The Secretary of Energy may make grants to a State energy office—

(1) to assist school districts in the State to improve the energy efficiency of school buildings;

(2) to administer the Program; and

(3) to promote participation in the Program.

(c) GRANTS TO ASSIST SCHOOL DISTRICTS.—The Secretary shall condition grants under subsection (b)(1) on the State energy office using the grants to assist school districts that have demonstrated—

(1) a need for the grants to build additional school buildings to meet increasing elementary or secondary enrollments or to renovate existing school buildings; and

(2) a commitment to use the grant funds to develop high performance school buildings in accordance with a plan that the State energy office, in consultation with the State educational agency, has determined is feasible and appropriate to achieve the purposes for which the grant is made.

(d) GRANTS FOR ADMINISTRATION.—Grants under subsection (b)(2) shall be used to—

(1) evaluate compliance by school districts with requirements of this section;

(2) distribute information and materials to clearly define and promote the development of high performance school buildings for both new and existing facilities;

(3) organize and conduct programs for school board members, school personnel, architects, engineers, and others to advance the concepts of high performance school buildings;

(4) obtain technical services and assistance in planning and designing high performance school buildings; or

(5) collect and monitor data and information pertaining to the high performance school building projects.

(e) GRANTS TO PROMOTE PARTICIPATION.—Grants under subsection (b)(3) shall be used for promotional and marketing activities, including facilitating private and public financing, promoting the use of energy savings performance contracts, working with school administrations, students, and communities, and coordinating public benefit programs.

(f) SUPPLEMENTING GRANT FUNDS.—The State energy office shall encourage qualifying school districts to supplement funds awarded pursuant to this section with funds from other sources in the implementation of their plans.

(g) ALLOCATIONS.—Except as provided in subsection (h), funds appropriated to carry out this section shall be allocated as follows:

(1) 70 percent shall be used to make grants under subsection (b)(1);

(2) 15 percent shall be used to make grants under subsection (b)(2); and

(3) 15 percent shall be used to make grants under subsection (b)(3).

(h) OTHER FUNDS.—The Secretary of Energy may retain an amount, not to exceed $300,000 per year, to assist State energy offices in coordinating and implementing the Program. Such funds may be used to develop reference materials to further define the principles and criteria to achieve high performance school buildings.

(i) AUTHORIZATION OF APPROPRIATIONS.—For grants under subsection (b) there are authorized to be appropriated—

(1) $200,000,000 for fiscal year 2003;

(2) $210,000,000 for fiscal year 2004;

(3) $220,000,000 for fiscal year 2005;

(4) $230,000,000 for fiscal year 2006; and

(5) such sums as may be necessary for fiscal year 2007 and each fiscal year thereafter through fiscal year 2012.

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

(1) HIGH PERFORMANCE SCHOOL BUILDING.—The term ''high performance school building'' means a school building that, in its design, construction, operation, and maintenance—

(A) maximizes use of renewable energy and energy-efficient technologies and systems;

(B) is cost-effective on a life-cycle basis;

(C) achieves either—

(i) the applicable Energy Star building energy performance ratings, or

(ii) energy consumption levels at least 30 percent below those of the most recent version of ASHRAE Standard 90.1;

(D) uses affordable, environmentally preferable, and durable materials;

(E) enhances indoor environmental quality;

(F) protects and conserves water; and

(G) optimizes site potential.

(2) RENEWABLE ENERGY.—The term ''renewable energy'' means energy produced by solar, wind, biomass, ocean, geothermal, or hydroelectric power.

(3) SCHOOL.—The term ''school'' means—

(A) an ''elementary school'' as that term is defined in section 14101(14) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(14)),

(B) a ''secondary school'' as that term is defined in section 14101(25) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(25)), or

(C) an elementary or secondary Indian school funded by the Bureau of Indian Affairs.

(4) STATE EDUCATIONAL AGENCY.—The term ''State educational agency'' has the same meaning given such term in section 14101(28) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(28)).

(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), or, if no such agency exists, a State agency designated by the Governor of the State.

SEC. 904. LOW INCOME COMMUNITY ENERGY EFFICIENCY PILOT PROGRAM.

(a) GRANTS.—The Secretary of Energy is authorized to make grants to private, nonprofit community development organizations and Indian tribe economic development entities to improve energy efficiency, identify and develop alternative renewable and distributed energy supplies, and increase energy conservation in low income rural and urban communities.

(b) PURPOSE OF GRANTS.—The Secretary may make grants on a competitive basis to a community development organization for—

(1) investments that develop alternative renewable and distributed energy supplies;

(2) energy efficiency projects and energy conservation programs;

(3) studies and other activities that improve energy efficiency in low income rural and urban communities;

(4) planning and development assistance for increasing the energy efficiency of buildings and facilities; and

(5) technical and financial assistance to local government and private entities on developing new renewable and distributed sources of power or combined heat and power generation.

(c) DEFINITION.—For purposes of this section, the term ''Indian tribe''means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native Village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(d) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this section there are authorized to be appropriated to the Secretary of Energy an amount not to exceed $10 million for fiscal year 2003 and each fiscal year thereafter through fiscal year 2005.

Subtitle B—Federal Energy Efficiency

SEC. 911. ENERGY MANAGEMENT REQUIREMENTS.

(a) ENERGY REDUCTION GOALS.—Section 543(a)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)(1)) is amended to read as follows:

''(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 2002 through 2011 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year 2000, by the percentage specified in the following table:

''Fiscal Year	Percentage reduction
2002	2
2003	4
2004	6
2005	8
2006	10
2007	12
2008	14
2009	16
2010	18
2011	20

(b) REVIEW AND REVISION OF ENERGY PERFORMANCE REQUIREMENT.—Section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)) is further amended by adding at the end the following:

''(3) Not later than December 31, 2010, 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 calendar years 2012 through 2021.''.

(c) EXCLUSIONS.—Section 543(c)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(1)) is amended to read as follows:

''(1)(A) An agency may exclude, from the energy performance requirement for a calendar 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, Executives 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.''.

(d) REVIEW BY SECRETARY.—Section 543(c)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(2)) is amended—

(1) by striking ''impracticability standards'' and inserting ''standards for exclusion''; and

(2) by striking ''a finding of impracticability'' and inserting ''the exclusion''.

(e) CRITERIA.—Section 543(c) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)) is further amended by adding at the end the following:

''(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).''.

(f) REPORTS.—Section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8258(b)) is amended—

(1) in the subsection heading, by inserting ''THE PRESIDENT AND'' before ''CONGRESS''; and

(2) by inserting ''President and'' before ''Congress''.

(g) CONFORMING AMENDMENT.—Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8258b(d)) is amended in the second sentence by striking ''the 20 percent reduction goal established under section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)).'' and inserting ''each of the energy reduction goals established under section 543(a).''.

SEC. 912. ENERGY USE MEASUREMENT AND ACCOUNTABILITY.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is further amended by adding at the end the following:

''(e) METERING OF ENERGY USE.—

''(1) DEADLINE.—By October 1, 2004, all Federal buildings shall be metered or submetered in accordance with guidelines established by the Secretary under paragraph (2).

''(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 Service Administration and representatives from the metering industry, energy services industry, national laboratories, universities and federal facility energy 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 submetering and the reduced cost of operation and maintenance expected to result from metering and submetering;

''(II) the extent to which metering and submetering are 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 1 or more dates, not later than 1 year after the date of issuance of the guidelines, on which the requirement specified in paragraph (1) shall take effect; and

''(iv) establish exclusions from the requirement specified in paragraph (1) based on the de minimus quantity of energy use of a Federal building, industrial process, or structure.

''(f) USE OF ENERGY CONSUMPTION DATA IN FEDERAL BUILDINGS.—

''(1) IN GENERAL.—Beginning not later than January 1, 2003, each agency shall use, to the maximum extent practicable, for the purposes of efficient use of energy and reduction in the cost of electricity used in the Federal buildings of the agency, interval consumption data that measure on a real-time or daily basis consumption of electricity in the Federal buildings of the agency.

''(2) PLAN.—As soon as practicable after the date of enactment of this subsection, 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 requirement of paragraph (1), including how the agency will designate personnel primarily responsible for achieving the requirement.''.

SEC. 913. FEDERAL BUILDING PERFORMANCE STANDARDS.

(a) REVISED STANDARDS.—Section 305(a) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)) is amended—

(1) in paragraph (2)(A), by striking ''CABO Model Energy Code, 1992'' and inserting ''the 2000 International Energy Conservation Code''; and

(2) by adding at the end the following:

''(3) REVISED FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS.—

''(A) IN GENERAL.—Not later than 1 year after the date of enactment of this paragraph, the Secretary of Energy shall establish, by rule, revised Federal building energy efficiency performance standards that require that, if cost-effective—

''(i) new commercial buildings and multifamily high rise residential buildings be constructed so as to achieve the applicable Energy Star building energy performance ratings or energy consumption levels at least 30 percent below those of the most recent ASHRAE Standard 90.1, whichever results in the greater increase in energy efficiency;

''(ii) new residential buildings (other than those described in clause (i)) be constructed so as to achieve the applicable Energy Star building energy performance ratings or achieve energy consumption levels at least 30 percent below the requirements of the most recent version of the International Energy Conservation Code, whichever results in the greater increase in energy efficiency; and

''(iii) sustainable design principles are applied to the siting, design, and construction of all new and replacement buildings.

''(B) ADDITIONAL REVISIONS.—Not later than 1 year after the date of approval of amendments to ASHRAE Standard 90.1 or the 2000 International Energy Conservation Code, the Secretary of Energy shall determine, based on the cost-effectiveness of the requirements under the amendments, whether the revised standards established under this paragraph should be updated to reflect the amendments.

''(C) STATEMENT ON COMPLIANCE OF NEW BUILDINGS.—In the budget request of the Federal agency for each fiscal year and each report submitted by the Federal agency under

section 548(a) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)), the head of each Federal agency shall include—

''(i) a list of all new Federal buildings of the Federal agency; and

''(ii) a statement concerning whether the Federal buildings meet or exceed the revised standards established under this paragraph, including a monitoring and commissioning report that is in compliance with the measurement and verification protocols of the Department of Energy.

''(D) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this paragraph and to implement the revised standards established under this paragraph.''.

(b) ENERGY LABELING PROGRAM.—Section 305(a) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)) is further amended by adding at the end the following:

''(e) ENERGY LABELING PROGRAM.—The Secretary of Energy, in cooperation with the Administrator of the Environmental Protection Agency, shall develop an energy labeling program for new Federal buildings that exceed the revised standards established under subsection (a)(3) by 15 percent or more.''.

SEC. 914. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

(a) REQUIREMENTS.—Part 3 of title V of the National Energy Conservation Policy Act is amended by adding at the end the following:

''SEC. 552. FEDERAL PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

''(a) DEFINITIONS.—In this section:

''(1) ENERGY STAR PRODUCT.—The term 'Energy Star product' means a product that is rated for energy efficiency under an Energy Star program.

''(2) ENERGY STAR PROGRAM.—The term 'Energy Star program' means the program established by section 324A of the Energy Policy and Conservation Act.

''(3) EXECUTIVE AGENCY.—The term 'executive agency' has the meaning given the term in section 4 of the Office of Federal Procurement Policy Act (41 U.S.C. 403).

''(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 energy efficiency.

''(b) PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.—

''(1) REQUIREMENT.—To meet the requirements of an executive agency for an energy consuming product, the head of the executive agency shall, except as provided in paragraph (2), procure—

''(A) an Energy Star product; or

''(B) a FEMP designated product.

''(2) EXCEPTIONS.—The head of an executive agency is not required to procure an Energy Star product or FEMP designated product under paragraph (1) if—

''(A) an Energy Star product or FEMP designated product is not cost effective over the life cycle of the product; or

''(B) no Energy Star product or FEMP designated product is reasonably available that meets the requirements of the executive agency.

''(3) PROCUREMENT PLANNING.—The head of an executive agency shall incorporate into the specifications for all procurements involving energy consuming products and systems, and into the factors for the evaluation of offers received for the procurement, criteria for energy efficiency that are consistent with the criteria used for rating Energy Star products and for rating FEMP designated products.

''(c) LISTING OF ENERGY EFFICIENT PRODUCTS IN FEDERAL CATALOGS.—Energy Star and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by the General Services Administration or the Defense Logistics Agency.

(b) CONFORMING AMENDMENT.—The table of contents in section 1(b) of the National Energy Conservation Policy Act (42 U.S.C. 8201 note) is amended by inserting after the item relating to section 551 the following:

''Sec. 552. Federal Government procurement of energy efficient products.''

(c) REGULATIONS.—Not later than 180 days after the effective date specified in subsection (f), the Secretary of Energy shall issue guidelines to carry out section 552 of the National Energy Conservation Policy Act (as added by subsection (a)).

(d) DESIGNATION OF ENERGY STAR PRODUCTS.—The Administrator of the Environmental Protection Agency and the Secretary of Energy shall expedite the process of designating products as Energy Star products (as defined in section 552 of the National Energy Conservation Policy Act (as added by subsection (a)).

(e) DESIGNATION OF ELECTRIC MOTORS.—In the case of electric motors of 1 to 500 horsepower, agencies shall select only premium efficient motors that meet a standard designated by the Secretary. The Secretary shall designate such a standard within 120 days of the enactment of this paragraph, after considering the recommendations of associated electric motor manufacturers and energy efficiency groups.

(f) EFFECTIVE DATE.—Subsection (a) and the amendment made by that subsection take effect on the date that is 180 days after the date of enactment of this Act.

SEC. 915. REPEAL OF ENERGY SAVINGS PERFORMANCE CONTRACT SUNSET.

Section 801(c) of the National Energy Conservation Policy Act (42 U.S.C. 8287(c)) is repealed.

SEC. 916. ENERGY SAVINGS PERFORMANCE CONTRACT DEFINITIONS.

(a) ENERGY SAVINGS.—Section 804(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(2)) is amended to read as follows:

''(2) The term 'energy savings' means a reduction in the cost of energy or water, from a base cost established through a methodology set forth in the contract, used in an existing federally owned building or buildings or other federally owned facilities as a result of—

''(A) the lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services;

''(B) the increased efficient use of existing energy sources by cogeneration or heat recovery, excluding any cogeneration process for other than a federally owned building or buildings or other federally owned facilities; or

''(C) the increased efficient use of existing water sources.''.

(b) ENERGY SAVINGS CONTRACT.—Section 804(3) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(3)) is amended to read as follows:

''(3) The terms 'energy savings contract' and 'energy savings performance contract' mean a contract which provides for the performance of services for the design, acquisition, installation, testing, operation, and, where appropriate, maintenance and repair, of an identified energy or water conservation measure or series of measures at one or more locations.''.

(c) ENERGY OR WATER CONSERVATION MEASURE.—Section 804(4) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(4)) is amended to read as follows:

''(4) The term 'energy or water conservation measure' means—

''(A) an energy conservation measure, as defined in section 551(4) (42 U.S.C. 8259(4)); or

''(B) a water conservation measure that improves water efficiency, is life cycle cost effective, and involves water conservation, water recycling or reuse, more efficient treatment of wastewater or stormwater, improvements in operation or maintenance efficiencies, retrofit activities or other related activities, not at a Federal hydroelectric facility.''.

SEC. 917. REVIEW OF ENERGY SAVINGS PERFORMANCE CONTRACT PROGRAM.

Within 180 days after the date of the enactment of this Act, the Secretary of Energy shall complete a review of the Energy Savings Performance Contract program to identify statutory, regulatory, and administrative obstacles that prevent Federal agencies from fully utilizing the program. In addition, this review shall identify all areas for increasing program flexibility and effectiveness, including audit and measurement verification requirements, accounting for energy use in determining savings, contracting requirements, and energy efficiency services covered. The Secretary shall report these findings to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, and shall implement identified administrative and regulatory changes to increase program flexibility and effectiveness to the extent that such changes are consistent with statutory authority.

SEC. 918. FEDERAL ENERGY BANK.

Part 3 of title V of the National Energy Conservation Policy Act is amended by adding at the end the following:

''SEC. 553. FEDERAL ENERGY BANK.

''(a) DEFINITIONS.—In this section:

''(1) BANK.—The term 'Bank' means the Federal Energy Bank established by subsection (b).

''(2) ENERGY OR WATER EFFICIENCY PROJECT.—The term 'energy or water efficiency project' means a project that assists a Federal agency in meeting or exceeding the energy or water efficiency requirements of—

''(A) this part;

''(B) title VIII;

''(C) subtitle F of title I of the Energy Policy Act of 1992 (42 U.S.C. 8262 et seq.); or

''(D) any applicable Executive order, including Executive Order No. 13123.

''(3) FEDERAL AGENCY.—The term 'Federal agency' means—

''(A) an Executive agency (as defined in section 105 of title 5, United States Code);

''(B) the United States Postal Service;

''(C) Congress and any other entity in the legislative branch; and

''(D) a Federal court and any other entity in the judicial branch.

''(b) ESTABLISHMENT OF BANK.—

''(1) IN GENERAL.—There is established in the Treasury of the United States a fund to be known as the 'Federal Energy Bank', consisting of—

''(A) such amounts as are deposited in the Bank under paragraph (2);

''(B) such amounts as are repaid to the Bank under subsection (c)(2)(D); and

''(C) any interest earned on investment of amounts in the Bank under paragraph (3).

''(2) DEPOSITS IN BANK.—

''(A) IN GENERAL.—Subject to the availability of appropriations and to subparagraph (B), the Secretary of the Treasury shall deposit in the Bank an amount equal to $250,000,000 in fiscal year 2003 and in each fiscal year thereafter.

''(B) MAXIMUM AMOUNT IN BANK.—Deposits under subparagraph (A) shall cease beginning with the fiscal year following the fiscal year in which the amounts in the Bank (including

amounts on loan from the Bank) become equal to or exceed $1,000,000,000.

''(3) INVESTMENT OF AMOUNTS.—The Secretary of the Treasury shall invest such portion of the Bank as is not, in the judgment of the Secretary, required to meet current withdrawals. Investments may be made only in interest-bearing obligations of the United States.

''(c) LOANS FROM THE BANK.—

''(1) IN GENERAL.—The Secretary of the Treasury shall transfer from the Bank to the Secretary such amounts as are appropriated to carry out the loan program under paragraph (2).

''(2) LOAN PROGRAM.—

''(A) ESTABLISHMENT.—

''(i) IN GENERAL.—In accordance with subsection (d), the Secretary, in consultation with the Secretary of Defense, the Administrator of General Services, and the Director of the Office of Management and Budget, shall establish a program to make loans of amounts in the Bank to any Federal agency that submits an application satisfactory to the Secretary in order to pay the costs of a project described in subparagraph (C).

''(ii) COMMENCEMENT OF OPERATIONS.—The Secretary may begin—

''(I) accepting applications for loans from the Bank in fiscal year 2002; and

''(II) making loans from the Bank in fiscal year 2003.

''(B) ENERGY SAVINGS PERFORMANCE CONTRACTING FUNDING.—To the extent practicable, an agency shall not submit a project for which energy performance contracting funding is available and is acceptable to the Federal agency under title VIII.

''(C) PURPOSES OF LOAN.—

''(i) IN GENERAL.—A loan from the Bank may be used to pay—

''(I) the costs of an energy or water efficiency project, or a renewable or alternative energy project, for a new or existing Federal building (including selection and design of the project);

''(II) the costs of an energy metering plan and metering equipment installed pursuant to section 543(e) or for the purpose of verification of the energy savings under an energy savings performance contract under title VIII; or

''(III) at the time of contracting, the costs of cofunding of an energy savings performance contract (including a utility energy service agreement) in order to shorten the payback period of the project that is the subject of the energy savings performance contract.

''(ii) LIMITATION.—A Federal agency may use not more than 10 percent of the amount of a loan under subclause (I) or (II) of clause (i) to pay the costs of administration and proposal development (including data collection and energy surveys).

''(iii) RENEWABLE AND ALTERNATIVE ENERGY PROJECTS.—Not more than 25 percent of the amount on loan from the Bank at any time may be loaned for renewable energy and alternative energy projects (as defined by the Secretary in accordance with applicable law (including Executive Orders)).

''(D) REPAYMENTS.—

''(i) IN GENERAL.—Subject to clauses (ii) through (iv), a Federal agency shall repay to the Bank the principal amount of a loan plus interest at a rate determined by the President, in consultation with the Secretary and the Secretary of the Treasury.

''(ii) WAIVER OR REDUCTION OF INTEREST.—The Secretary may waive or reduce the rate of interest required to be paid under clause (i) if the Secretary determines that payment of interest by a Federal agency at the rate determined under that clause is not required to fund the operations of the Bank.

''(iii) DETERMINATION OF INTEREST RATE.—The interest rate determined under clause (i) shall be at a rate that is sufficient to ensure that, beginning not later than October 1, 2007, interest payments will be sufficient to fully fund the operations of the Bank.

''(iv) INSUFFICIENCY OF APPROPRIATIONS.—

''(I) REQUEST FOR APPROPRIATIONS.—As part of the budget request of the Federal agency for each fiscal year, the head of each Federal agency shall submit to the President a request for such amounts as are necessary to make such repayments as are expected to become due in the fiscal year under this subparagraph.

''(II) SUSPENSION OF REPAYMENT REQUIREMENT.—If, for any fiscal year, sufficient appropriations are not made available to a Federal agency to make repayments under this subparagraph, the Bank shall suspend the requirement of repayment under this subparagraph until such appropriations are made available.

''(E) FEDERAL AGENCY ENERGY BUDGETS.—Until a loan is repaid, a Federal agency budget submitted by the President to Congress for a fiscal year shall not be reduced by the value of energy savings accrued as a result of any energy conservation measure implemented using amounts from the Bank.

''(F) NO RESCISSION OR REPROGRAMMING.—A Federal agency shall not rescind or reprogram loan amounts made available from the Bank except as permitted under guidelines issued under subparagraph (G).

''(G) GUIDELINES.—The Secretary shall issue guidelines for implementation of the loan program under this paragraph, including selection criteria, maximum loan amounts, and loan repayment terms.

''(d) SELECTION CRITERIA.—

''(1) IN GENERAL.—The Secretary shall establish criteria for the selection of projects to be awarded loans in accordance with paragraph (2).

''(2) SELECTION CRITERIA.—

''(A) IN GENERAL.—The Secretary may make loans from the Bank only for a project that—

''(i) is technically feasible;

''(ii) is determined to be cost-effective using life cycle cost methods established by the Secretary;

''(iii) includes a measurement and management component, based on the measurement and verification protocols of the Department of Energy, to—

''(I) commission energy savings for new and existing Federal facilities;

''(II) monitor and improve energy efficiency management at existing Federal facilities; and

''(III) verify the energy savings under an energy savings performance contract under title VIII; and

''(iv)(I) in the case of renewable energy or alternative energy project, has a simple payback period of not more than 15 years; and

''(II) in the case of any other project, has a simple payback period of not more than 10 years.

''(B) PRIORITY.—In selecting projects, the Secretary shall give priority to projects that—

''(i) are a component of a comprehensive energy management project for a Federal facility; and

''(ii) are designed to significantly reduce the energy use of the Federal facility.

''(e) REPORTS AND AUDITS.—

''(1) REPORTS TO THE SECRETARY.—Not later than 1 year after the completion of installation of a project that has a cost of more than $1,000,000, and annually thereafter, a Federal agency shall submit to the Secretary a report that—

''(A) states whether the project meets or fails to meet the energy savings projections for the project; and

''(B) for each project that fails to meet the energy savings projections, states the reasons for the failure and describes proposed remedies.

''(2) AUDITS.—The Secretary may audit, or require a Federal agency that receives a loan from the Bank to audit, any project financed with amounts from the Bank to assess the performance of the project.

''(3) REPORTS TO CONGRESS.—At the end of each fiscal year, the Secretary shall submit to Congress a report on the operations of the Bank, including a statement of—

''(A) the total receipts by the Bank;

''(B) the total amount of loans from the Bank to each Federal agency; and

''(C) the estimated cost and energy savings resulting from projects funded with loans from the Bank.

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

SEC. 919. ENERGY AND WATER SAVING MEASURES IN CONGRESSIONAL BUILDINGS.

(a) IN GENERAL.—Part 3 of title V of the National Energy Conservation Policy Act is amended by adding at the end:

''SEC. 554. ENERGY AND WATER SAVINGS MEASURES IN CONGRESSIONAL BUILDINGS.

''(a) IN GENERAL.—The Architect of the Capitol—

''(1) shall develop, update, and implement a cost-effective energy conservation and management plan (referred to in this section as the 'plan') for all facilities administered by the Congress (referred to in this section as 'congressional buildings') to meet the energy performance requirements for Federal buildings established under section 543(a)(1).

''(2) shall submit the plan to Congress, not later than 180 days after the date of enactment of this section.

''(b) PLAN REQUIREMENTS.—The plan shall include—

''(1) a description of the life-cycle cost analysis used to determine the cost-effectiveness of proposed energy efficiency projects;

''(2) a schedule of energy surveys to ensure complete surveys of all congressional buildings every five years to determine the cost and payback period of energy and water conservation measures;

''(3) a strategy for installation of life cycle cost effective energy and water conservation measures;

''(4) the results of a study of the costs and benefits of installation of submetering in congressional buildings; and

''(5) information packages and 'how-to' guides for each Member and employing authority of Congress that detail simple, cost-effective methods to save energy and taxpayer dollars in the workplace.

''(c) CONTRACTING AUTHORITY.—The Architect—

''(1) may contract with nongovernmental entities and use private sector capital to finance energy conservation projects and meet energy performance requirements; and

''(2) may use innovative contracting methods that will attract private sector funding for the installation of energy efficient and renewable energy technology, such as energy savings performance contracts described in title VIII.

''(d) CAPITOL VISITOR CENTER.—The Architect—

''(1) shall ensure that state-of-the-art energy efficiency and renewable energy technologies are used in the construction and design of the Visitor Center; and

''(2) shall include in the Visitor Center an exhibit on the energy efficiency and renewable energy measures used in congressional buildings.

''(e) ANNUAL REPORT.—The Architect shall submit to Congress annually a report on congressional energy management and conservation programs required under this section that describes in detail—

''(1) energy expenditures and savings estimates for each facility;

''(2) energy management and conservation projects; and

''(3) future priorities to ensure compliance with this section.''.

(b) REPEAL.—Section 310 of the Legislative Branch Appropriations Act, 1999 (40 U.S.C. 166i), is repealed.

Subtitle C—Industrial Efficiency and Consumer Products

SEC. 921. VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY.

(a) VOLUNTARY AGREEMENTS.—The Secretary of Energy shall enter into voluntary agreements with one or more persons in industrial sectors that consume significant amounts of primary energy per unit of physical output to reduce the energy intensity of their production activities.

(b) GOAL.—Voluntary agreements under this section shall have a goal of reducing energy intensity by not less than 2.5 percent each year from 2002 through 2012.

(c) RECOGNITION.—The Secretary of Energy, in cooperation with the Administrator of the Environmental Protection Agency and other appropriate federal agencies, shall develop mechanisms to recognize and publicize the achievements of participants in voluntary agreements under this section.

(d) DEFINITION.—In this section, the term ''energy intensity'' means the primary energy consumed per unit of physical output in an industrial process.

(e) TECHNICAL ASSISTANCE.—An entity that enters into an agreement under this section and continues to make a good faith effort to achieve the energy efficiency goals specified in the agreement shall be eligible to receive from the Secretary a grant or technical assistance as appropriate to assist in the achievement of those goals.

(f) REPORT.—Not later than June 30, 2008 and June 30, 2012, the Secretary shall submit to Congress a report that evaluates the success of the voluntary agreements, with independent verification of a sample of the energy savings estimates provided by participating firms.

SEC. 922. AUTHORITY TO SET STANDARDS FOR COMMERCIAL PRODUCTS.

Part B of title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.) is amended as follows:

(1) In the heading for such part, by inserting ''AND COMMERCIAL'' after ''CONSUMER''.

(2) In section 321(2), by inserting ''or commercial'' after ''consumer''.

(3) In paragraphs (4), (5), and (15) of section 321, by striking ''consumer'' each place it appears and inserting ''covered''.

(4) In section 322(a), by inserting ''or commercial'' after ''consumer'' the first place it appears in the material preceding paragraph (1).

(5) In section 322(b), by inserting ''or commercial'' after ''consumer'' each place it appears.

(6) In section 322 (b)(1)(B) and (b)(2)(A), by inserting ''or per-business in the case of a commercial product'' after ''per-household'' each place it appears.

(7) In section 322 (b)(2)(A), by inserting ''or businesses in the case of commercial products'' after ''households'' each place it appears.

(8) In section 322 (B)(2)(C)—

(A) by striking ''term'' and inserting ''terms''; and

(B) by inserting ''and 'business' '' after '' 'household' ''.

(9) In section 323 (b)(1)(B) by inserting ''or commercial'' after ''consumer''.

SEC. 923. ADDITIONAL DEFINITIONS.

Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by adding at the end the following:

''(32) The term 'battery charger' means a device that charges batteries for consumer products.

''(33) The term 'commercial refrigerator, freezer and refrigerator-freezer' means a refrigerator, freezer or refrigerator-freezer that—

''(A) is not a consumer product regulated under this Act; and

''(B) incorporates most components involved in the vapor-compression cycle and the refrigerated compartment in a single package.

''(34) The term 'external power supply' means an external power supply circuit that is used to convert household electric current into either DC current or lower-voltage AC current to operate a consumer product.

''(35) The term 'illuminated exit sign' means a sign that—

''(A) is designed to be permanently fixed in place to identify an exit; and

''(B) consists of—

''(i) an electrically powered integral light source that illuminates the legend 'EXIT' and any directional indicators; and

''(ii) provides contrast between the legend, any directional indicators, and the background.

''(36)(A) Except as provided in subsection (B), the term 'low-voltage dry-type transformer' means a transformer that—

''(i) has an input voltage of 600 volts or less;

''(ii) is air-cooled;

''(iii) does not use oil as a coolant; and

''(iv) is rated for operation at a frequency of 60 Hertz.

''(B) The term 'low-voltage dry-type transformer' does not include—

''(i) transformers with multiple voltage taps, with the highest voltage tap equaling at least 20 percent more than the lowest voltage tap;

''(ii) transformers that are designed to be used in a special purpose application, such as transformers commonly known as drive transformers, rectifier transformers, autotrans- formers, Uninterruptible Power System transformers, impedance transformers, harmonic transformers, regulating transformers, sealed and nonventilating transformers, machine tool transformers, welding transformers, grounding transformers, or testing transformers; or

''(iii) any transformer not listed in clause (ii) that is excluded by the Secretary by rule because the transformer is designed for a special application and the application of standards to the transformer would not result in significant energy savings.

''(37) The term ''standby mode'' means the lowest amount of electric power used by a household appliance when not performing its active functions, as defined on an individual product basis by the Secretary.

''(38) The term 'torchiere' means a portable electric lamp with a reflector bowl that directs light upward so as to give indirect illumination.

''(39) The term 'transformer' means a device consisting of 2 or more coils of insulated wire that transfers alternating current by electromagnetic induction from one coil to another to change the original voltage or current value.

''(40) The term 'unit heater' means a self-contained fan-type heater designed to be installed within the heated space, except that such term does not include a warm air furnace.

SEC. 924. ADDITIONAL TEST PROCEDURES.

(a) EXIT SIGNS.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293) is amended by adding at the end the following:

''(9) Test procedures for illuminated exit signs shall be based on the test method used under the Energy Star program of the Environmental Protection Agency for illuminated exit signs, as in effect on the date of enactment of this paragraph.

''(10) Test procedures for low voltage dry-type distribution transformers shall be based on the 'Standard Test Method for Measuring the Energy Consumption of Distribution Transformers' prescribed by the National Electrical Manufacturers Association (NEMA TP 2–1998). The Secretary may review and revise this test procedure based on future revisions to such standard test method.

(b) ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—Section 323 of the Energy Policy and Conservation Act (42 U.S.C. 6293) is further amended by adding at the end the following:

''(f) ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—The Secretary shall within 24 months after the date of enactment of this subsection prescribe testing requirements for suspended ceiling fans, refrigerated bottled or canned beverage vending machines, commercial unit heaters, and commercial refrigerators, freezers and refrigerator-freezers. Such testing requirements shall be based on existing test procedures used in industry to the extent practical and reasonable. In the case of suspended ceiling fans, such test procedures shall include efficiency at both maximum output and at an output no more than 50 percent of the maximum output.''.

SEC. 925. ENERGY LABELING.

(a) RULEMAKING ON EFFECTIVENESS OF CONSUMER PRODUCT LABELING.—Paragraph (2) of section 324(a) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended by adding at the end the following:

''(F) Not later than three months after the date of enactment of this subparagraph, the Commission shall initiate a rulemaking to consider the effectiveness of the current consumer products labeling program in assisting consumers in making purchasing decisions and improving energy efficiency and to consider changes to the labeling rules that would improve the effectiveness of consumer product labels. Such rulemaking shall be completed within 15 months of the date of enactment of this subparagraph.''.

(b) RULEMAKING ON LABELING FOR ADDITIONAL PRODUCTS.—Section 324(a) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)) is further amended by adding at the end the following:

''(5) The Secretary shall within 6 months after the date on which energy conservation standards are prescribed by the Secretary for covered products referred to in subsections (u) and (v) of section 325, and within 18 months of enactment of this paragraph for products referred to in subsections (w) through (y) of section 325, prescribe, by rule, labeling requirements for such products. Labeling requirements adopted under this paragraph shall take effect on the same date as the standards set pursuant to sections 325(v) through (y).

SEC. 926. ENERGY STAR PROGRAM.

The Energy Policy and Conservation Act (42 U.S.C. 6201 and following) is amended by inserting after section 324 the following:

''ENERGY STAR PROGRAM.

''SEC. 324A. (a) IN GENERAL.—There is established at the Department of Energy and the Environmental Protection Agency a program to identify and promote energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through labeling of products and buildings that meet the highest energy efficiency standards. Responsibilities under the program shall be divided between the Department of Energy and the Environmental Protection Agency consistent with the terms of agreements between the two agencies. The Administrator and the Secretary shall—

''(1) promote Energy Star compliant technologies as the preferred technologies in the marketplace for achieving energy efficiency and to reduce pollution;

''(2) work to enhance public awareness of the Energy Star label;

''(3) preserve the integrity of the Energy Star label; and

''(4) solicit the comments of interested parties in establishing a new Energy Star product category or in revising a product category, and upon adoption of a new or revised product category provide an explanation of the decision that responds to significant public comments.''.

SEC. 927. ENERGY CONSERVATION STANDARDS FOR CENTRAL AIR CONDITIONERS AND HEAT PUMPS.

Section 325(d) of the Energy Policy and Conservation Act (42 U.S.C. 6295(d)) is amended to read as follows:

''(1) Except as provided in paragraph (3), the seasonal energy efficiency ratio of central air conditioners and central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 13.0.

''(2) Except as provided in paragraph (4), the heating seasonal performance factor of central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 7.7.

''(3) The seasonal energy efficiency ratio of central air conditioners or central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 12.0 for products that—

''(A) have a rated cooling capacity equal to or less than 30,000 Btu per hour;

''(B) have an outdoor or indoor unit having at least two overall exterior dimensions or an overall displacement that—

''(i) is substantially smaller than those of other units that are currently installed in site-built single family homes, and of a similar cooling or heating capacity, and

''(ii) if increased would result in a significant increase in the cost of installation or would result in a significant loss in the utility of the product to the consumer; and

''(C) were available for purchase in the United States as of December 1, 2000.

''(4) The heating seasonal performance factor of central air conditioning heat pumps manufactured on or after January 25, 2006 shall not be less than 7.4 for products that meet the criteria in paragraph (3).

''(5) The Secretary may postpone the requirements of paragraphs (3) and (4) for specific product types until a date no later than January 23, 2010.

''(6) The Secretary shall publish a final rule not later than January 1, 2006 to determine whether the standards in effect for central air conditioners and central air conditioning heat pumps should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 2011.''.

SEC. 928. ENERGY CONSERVATION STANDARDS FOR ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.

Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended by adding at the end the following:

''(u) STANDBY MODE ELECTRIC ENERGY CONSUMPTION.—

''(1) INITIAL RULEMAKING.—

''(A) The Secretary shall, within 18 months after the date of enactment of this subsection, prescribe by notice and comment, definitions of standby mode and test procedures for the standby mode power use of battery chargers and external power supplies. In establishing these test procedures, the Secretary shall consider, among other factors, existing test procedures used for measuring energy consumption in standby mode and assess the current and projected future market for battery chargers and external power supplies. This assessment shall include estimates of the significance of potential energy savings from technical improvements to these products and suggested product classes for standards. Prior to the end of this time period, the Secretary shall hold a scoping workshop to discuss and receive comments on plans for developing energy conservation standards for standby mode energy use for these products.

''(B) The Secretary shall, within 3 years after the date of enactment of this subsection, issue a final rule that determines whether energy conservation standards shall be promulgated for battery chargers and external power supplies or classes thereof. For each product class, any such standards shall be set at the lowest level of standby energy use that—

(i) meets the criteria of subsections (o), (p), (q), (r), (s) and (t); and

(ii) will result in significant overall annual energy savings, considering both standby mode and other operating modes.

''(2) DESIGNATION OF ADDITIONAL COVERED PRODUCTS.—

''(A) Not later than 180 days after the date of enactment of this subsection, the Secretary shall publish for public comment and public hearing a notice to determine whether any noncovered products should be designated as covered products for the purpose of instituting a rulemaking under this section to determine whether an energy conservation standard restricting standby mode energy consumption, should be promulgated; providing that any restriction on standby mode energy consumption shall be limited to major sources of such consumption.

''(B) In making the determinations pursuant to subparagraph (A) of whether to designate new covered products and institute rulemakings, the Secretary shall, among other relevant factors and in addition to the criteria in section 322(b), consider—

''(i) standby mode power consumption compared to overall product energy consumption; and

''(ii) the priority and energy savings potential of standards which may be promulgated under this subsection compared to other required rulemakings under this section and the available resources of the Department to conduct such rulemakings.

''(C) Not later than one year after the date of enactment of this subsection, the Secretary shall issue a determination of any new covered products for which he intends to institute rulemakings on standby mode pursuant to this section and he shall state the dates by which he intends to initiate those rulemakings.

''(3) REVIEW OF STANDBY ENERGY USE IN COVERED PRODUCTS.—In determining pursuant to section 323 whether test procedures and energy conservation standards pursuant to section 325 should be revised, the Secretary shall consider for covered products which are major sources of standby mode energy consumption whether to incorporate standby mode into such test procedures and energy conservation standards, taking into account, among other relevant factors, the criteria for non-covered products in subparagraph (B) of this subsection.

''(4) RULEMAKING FOR STANDBY MODE.—

''(A) Any rulemaking instituted under this subsection or for covered products under this section which restricts standby mode power consumption shall be subject to the criteria and procedures for issuing energy conservation standards set forth in section 325 and the criteria set forth in paragraph 2(B) of this subsection.

''(B) No standard can be proposed for new covered products or covered products in a standby mode unless the Secretary has promulgated applicable test procedures for each product pursuant to section 323.

''(C) The provisions of section 327 shall apply to new covered products which are subject to the rulemakings for standby mode after a final rule has been issued.

''(5) EFFECTIVE DATE.—Any standard promulgated under this subsection shall be applicable to products manufactured or imported three years after the date of promulgation.

''(6) VOLUNTARY PROGRAMS TO REDUCE STANDBY MODE ENERGY USE.—The Secretary and the Administrator shall collaborate and develop programs, including programs pursuant to section 324A and other voluntary industry agreements or codes of conduct, which are designed to reduce standby mode energy use.

''(v) SUSPENDED CEILING FANS, VENDING MACHINES, UNIT HEATERS, AND COMMERCIAL REFRIGERATORS, FREEZERS AND REFRIGERATOR-FREEZERS.—The Secretary shall within 24 months after the date on which testing requirements are prescribed by the Secretary pursuant to section 323(f), prescribe, by rule, energy conservation standards for suspended ceiling fans, refrigerated bottled or canned beverage vending machines, unit heaters, and commercial refrigerators, freezers and refrigerator-freezers. In establishing standards under this subsection, the Secretary shall use the criteria and procedures contained in subsections (l) and (m). Any standard prescribed under this subsection shall apply to products manufactured 3 years after the date of publication of a final rule establishing such standard.

''(w) ILLUMINATED EXIT SIGNS.—Illuminated exit signs manufactured on or after January 1, 2005 shall meet the Energy Star Program performance requirements for illuminated exit signs prescribed by the Environmental Protection Agency as in effect on the date of enactment of this subsection.

''(x) TORCHIERES.—Torchieres manufactured on or after January 1, 2005—

''(1) shall consume not more than 190 watts of power; and

''(2) shall not be capable of operating with lamps that total more than 190 watts.

''(y) LOW VOLTAGE DRY-TYPE TRANSFORMERS.—The efficiency of low voltage dry-type transformers manufactured on or after January 1, 2005 shall be the Class I Efficiency Levels for low voltage dry-type transformers specified in Table 4–2 of the 'Guide for Determining Energy Efficiency for Distribution Transformers' published by the National Electrical Manufacturers Association (NEMA TP–1–1996).''.

SEC. 929. CONSUMER EDUCATION ON ENERGY EFFICIENCY BENEFITS OF AIR CONDITIONING, HEATING, AND VENTILATION MAINTENANCE.

Section 337 of the Energy Policy and Conservation Act (42 U.S.C. 6307) is amended by adding at the end the following:

''(c) HVAC MAINTENANCE.—(1) For the purpose of ensuring that installed air conditioning and heating systems operate at their maximum rated efficiency levels, the Secretary shall, within 180 days of the date of enactment of this subsection, carry out a program to educate homeowners and small business owners concerning the energy savings resulting from properly conducted maintenance of air conditioning, heating, and ventilating systems.

''(2) The Secretary may carry out the program in cooperation with industry trade associations, industry members, and energy efficiency organizations.''.

Subtitle D—Housing Efficiency

SEC. 931. CAPACITY BUILDING FOR ENERGY EFFICIENT, AFFORDABLE HOUSING.

Section 4(b) of the HUD Demonstration Act of 1993 (42 U.S.C. 9816 note) is amended—

(1) in paragraph (1), by inserting before the semicolon at the end the following: '', including capabilities regarding the provision of energy efficient, affordable housing and residential energy conservation measures''; and

(2) in paragraph (2), by inserting before the semicolon the following: '', including such activities relating to the provision of energy efficient, affordable housing and residential energy conservation measures that benefit low-income families''.

SEC. 932. INCREASE OF CDBG PUBLIC SERVICES CAP FOR ENERGY CONSERVATION AND EFFICIENCY ACTIVITIES.

Section 105(a)(8) of the Housing and Community Development Act of 1974 (42 U.S.C. 5305(a)(8)) is amended—

(1) by inserting ''or efficiency'' after ''energy conservation'';

(2) by striking '', and except that'' and inserting ''; except that''; and

(3) by inserting before the period at the end the following: ''; and except that each percentage limitation under this paragraph on the amount of assistance provided under this title that may be used for the provision of public services is hereby increased by 10 percent, but such percentage increase may be used only for the provision of public services concerning energy conservation or efficiency''.

SEC. 933. FHA MORTGAGE INSURANCE INCENTIVES FOR ENERGY EFFICIENT HOUSING.

(a) SINGLE FAMILY HOUSING MORTGAGE INSURANCE.—Section 203(b)(2) of the National Housing Act (12 U.S.C. 1709(b)(2)) is amended, in the first undesignated paragraph beginning after subparagraph (B)(iii) (relating to solar energy systems)—

(1) by inserting ''or paragraph (10)''; and

(2) by striking ''20 percent'' and inserting ''30 percent''.

(b) MULTIFAMILY HOUSING MORTGAGE INSURANCE.—Section 207(c) of the National Housing Act (12 U.S.C. 1713(c)) is amended, in the second undesignated paragraph beginning after paragraph (3) (relating to solar energy systems and residential energy conservation measures), by striking ''20 percent'' and inserting ''30 percent''.

(c) COOPERATIVE HOUSING MORTGAGE INSURANCE.—Section 213(p) of the National Housing Act (12 U.S.C. 1715e(p)) is amended by striking ''20 per centum'' and inserting ''30 percent''.

(d) REHABILITATION AND NEIGHBORHOOD CONSERVATION HOUSING MORTGAGE INSURANCE.—Section 220(d)(3)(B)(iii) of the National Housing Act (12 U.S.C. 1715k(d)(3)(B)(iii)) is amended by striking ''20 per centum'' and inserting ''30 percent''.

(e) LOW-INCOME MULTIFAMILY HOUSING MORTGAGE INSURANCE.—Section 221(k) of the National Housing Act (12 U.S.C. 1715l(k)) is amended by striking ''20 per centum'' and inserting ''30 percent''.

(f) ELDERLY HOUSING MORTGAGE INSURANCE.—The proviso at the end of section 213(c)(2) of the National Housing Act (12 U.S.C. 1715v(c)(2)) is amended by striking ''20 per centum'' and inserting ''30 percent''.

(g) CONDOMINIUM HOUSING MORTGAGE INSURANCE.—Section 234(j) of the National Housing Act (12 U.S.C. 1715y(j)) is amended by striking ''20 per centum'' and inserting ''30 percent''.

SEC. 934. PUBLIC HOUSING CAPITAL FUND.

Section 9(d)(1) of the United States Housing Act of 1937 (42 U.S.C. 1437g(d)(1)) is amended—

(1) in subparagraph (I), by striking ''and'' at the end;

(2) in subparagraph (K), by striking the period at the end and inserting ''; and''; and

(3) by adding at the end the following new subparagraph:

''(L) improvement of energy and water-use efficiency by installing fixtures and fittings that conform to the American Society of Mechanical Engineers/American National Standards Institute standards A112.19.2–1998 and A112.18.1–2000, or any revision thereto, applicable at the time of installation, and by increasing energy efficiency and water conservation by such other means as the Secretary determines are appropriate.''.

SEC. 935. GRANTS FOR ENERGY-CONSERVING IMPROVEMENTS FOR ASSISTED HOUSING.

Section 251(b)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8231(1)) is amended—

(1) by striking ''financed with loans'' and inserting ''assisted'';

(2) by inserting after ''1959,'' the following: ''which are eligible multifamily housing projects (as such term is defined in section 512 of the Multifamily Assisted Housing Reform and Affordability Act of 1997 (42 U.S.C. 1437f note) and are subject to a mortgage restructuring and rental assistance sufficiency plans under such Act,''; and

(3) by inserting after the period at the end of the first sentence the following new sentence: ''Such improvements may also include the installation of energy and water conserving fixtures and fittings that conform to the American Society of Mechanical Engineers/American National Standards Institute standards A112.19.2–1998 and A112.18.1–2000, or any revision thereto, applicable at the time of installation.''.

SEC. 936. NORTH AMERICAN DEVELOPMENT BANK.

Part 2 of subtitle D of title V of the North American Free Trade Agreement Implementation Act (22 U.S.C. 290m–290m–3) is amended by adding at the end the following:

''SEC. 545. SUPPORT FOR CERTAIN ENERGY POLICIES.

''Consistent with the focus of the Bank's Charter on environmental infrastructure projects, the Board members representing the United States should use their voice and vote to encourage the Bank to finance projects related to clean and efficient energy, including energy conservation, that prevent, control, or reduce environmental pollutants or contaminants.''.

DIVISION D—INTEGRATION OF ENERGY POLICY AND CLIMATE CHANGE POLICY

TITLE X—CLIMATE CHANGE POLICY FORMULATION

Subtitle A—Global Warming

SEC. 1001. SENSE OF CONGRESS ON GLOBAL WARMING.

(a) FINDINGS. The Congress makes the following findings:

(1) Evidence continues to build that increases in atmospheric concentrations of man-made greenhouse gases are contributing to global climate change.

(2) The Intergovernmental Panel on Climate Change (IPCC) has concluded that ''there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities'' and that the Earth's average temperature can be expected to rise between 2.5 and 10.4 degrees Fahrenheit in this century.

(3) The National Academy of Sciences confirmed the findings of the IPCC, stating that ''the IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase of greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue'' and that ''there is general agreement that the observed warming is real and particularly strong within the past twenty years''.

(4) The IPCC has stated that in the last 40 years, the global average sea level has risen, ocean heat content has increased, and snow cover and ice extent have decreased, which threatens to inundate low-lying island nations and coastal regions throughout the world.

(5) The Environmental Protection Agency has found that global warming may harm the United States by altering crop yields, accelerating sea level rise, and increasing the spread of tropical infectious diseases.

(6) In 1992, the United States ratified the United Nations Framework Convention of Climate Change, done at New York on May 9, 1992, the ultimate objective of which is the ''stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'', and which stated in part ''the Parties to the Convention are to implement policies with the aim of returning . . . to their 1990 levels anthropogenic emissions of carbon dioxide and other greenhouse gases.''

(7) There is a shared international responsibility to address this problem, as industrial nations are the largest historic and current emitters of greenhouse gases and developing nations' emissions will significantly increase in the future.

(8) The United Nations Framework Convention on Climate Change further states that ''developed country Parties should take the lead in combating climate change and the adverse effects thereof'', as these nations are the largest historic and current emitters of greenhouse gases.

(9) Senate Resolution 98 of July 1997, which expressed that developing nations, especially the largest emitters, must also be included in any future, binding climate change treaty and such a treaty must not result in serious harm to the United States economy, should not cause the United States to abandon its shared responsibility to help find a solution to the global climate change dilemma.

(10) American businesses need to know how governments worldwide will respond to the threat of global warming.

(11) The United States has benefitted and will continue to benefit from investments in the research, development and deployment of a range of clean energy and efficiency technologies that can mitigate global warming and that can make the United States economy more productive, bolster energy security, create jobs, and protect the environment.

(b) SENSE OF CONGRESS.—It is the sense of the United States Congress that the United States should demonstrate international leadership and responsibility in mitigating the health, environmental, and economic threats posed by global warming by:

(1) taking responsible action to ensure significant and meaningful reductions in emissions of greenhouse gases from all sectors;

(2) creating flexible international and domestic mechanisms, including joint implementation, technology deployment, emissions trading and carbon sequestration projects that will reduce, avoid, and sequester greenhouse gas emissions; and

(3) participating in international negotiations, including putting forth a proposal at the next meeting of the Conference of the Parties, with the objective of securing United States' participation in a revised Kyoto Protocol or other future binding climate change agreements in a manner that is consistent with the environmental objectives of the Framework Convention on Climate Change, that protects the economic interests of the United States, and recognizes the shared international responsibility for addressing climate change, including developing country participation.

Subtitle B—Climate Change Strategy

SEC. 1011. SHORT TITLE.

This title may be cited as the ''Climate Change Strategy and Technology Innovation Act of 2002''.

SEC. 1012. FINDINGS.

Congress finds that—

(1) evidence continues to build that increases in atmospheric concentrations of greenhouse gases are contributing to global climate change;

(2) in 1992, the Senate ratified the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, the ultimate objective of which is the ''stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'';

(3) although science currently cannot determine precisely what atmospheric concentrations are ''dangerous'', the current trajectory of greenhouse gas emissions will lead to a continued rise in greenhouse gas concentrations in the atmosphere, not stabilization;

(4) the remaining scientific uncertainties call for temperance of human actions, but not inaction;

(5) greenhouse gases are associated with a wide range of human activities, including energy production, transportation, agriculture, forestry, manufacturing, buildings, and other activities;

(6) the economic consequences of poorly designed climate change response strategies, or of inaction, may cost the global economy trillions of dollars;

(7) a large share of this economic burden would be borne by the United States;

(8) stabilization of greenhouse gas concentrations in the atmosphere will require transformational change in the global energy system and other emitting sectors at an almost unimaginable level—a veritable industrial revolution is required;

(9) such a revolution can occur only if the revolution is preceded by research and development that leads to bold technological breakthroughs;

(10) over the decade preceding the date of enactment of this Act—

(A) energy research and development budgets in the public and private sectors have declined precipitously and have not been focused on the climate change response challenge; and

(B) the investments that have been made have not been guided by a comprehensive strategy;

(11) the negative trends in research and development funding described in paragraph (10) must be reversed with a focus on not only traditional energy research and development, but also bolder, breakthrough research;

(12) much more progress could be made on the issue of climate change if the United States were to adopt a new approach for addressing climate change that included, as an ultimate long-term goal—

(A) stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system; and

(B) a response strategy with 4 key elements consisting of—

(i) definition of interim emission mitigation levels, that, coupled with specific mitigation approaches and after taking into account actions by other nations (if any), would result in stabilization of greenhouse gas concentrations;

(ii) technology development, including—

(I) a national commitment to double energy research and development by the United States public and private sectors; and

(II) in carrying out such research and development, a national commitment to provide a high degree of emphasis on bold, breakthrough technologies that will make possible a profound transformation of the energy, transportation, industrial, agricultural, and building sectors of the United States;

(iii) climate adaptation research that—

(I) focuses on response actions necessary to adapt to climate change that may have already occurred;

(II) focuses on response actions necessary to adapt to climate change that may occur under any future climate change scenario;

(iv) climate science research that—

(I) builds on the substantial scientific understanding of climate change that exists as of the date of enactment of this Act;

(II) focuses on resolving the remaining scientific, technical, and economic uncertainties to aid in the development of sound response strategies; and

(13) inherent in each of the 4 key elements of the response strategy is consideration of the international nature of the challenge, which will require—

(A) establishment of joint climate response strategies and joint research programs;

(B) assistance to developing countries and countries in transition for building technical and institutional capacities and incentives for addressing the challenge; and

(C) promotion of public awareness of the issue.

SEC. 1013. PURPOSE.

The purpose of this title is to implement the new approach described in section 1012(12) by developing a national focal point for climate change response through—

(1) the establishment of the National Office of Climate Change Response within the Executive Office of the President to develop the United States Climate Change Response Strategy that—

(A) incorporates the 4 key elements of that new approach;

(B) is supportive of and integrated in the overall energy, transportation, industrial, agricultural, forestry, and environmental policies of the United States;

(C) takes into account—

(i) the diversity of energy sources and technologies;

(ii) supply-side and demand-side solutions; and

(iii) national infrastructure, energy distribution, and transportation systems;

(D) provides for the inclusion and equitable participation of Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties;

(E) incorporates new models of Federal-State cooperation;

(F) defines a comprehensive energy technology research and development program that—

(i) recognizes the important contributions that research and development programs in existence on the date of enactment of this title make toward addressing the climate change response challenge; and

(ii) includes an additional research and development agenda that focuses on the bold, breakthrough technologies that are critical to the long-term stabilization of greenhouse gas concentrations in the atmosphere;

(G) includes consideration of other efforts to address critical environmental and health concerns, including clean air, clean water, and responsible land use policies; and

(H) incorporates initiatives to promote the deployment of clean energy technologies developed in the United States and abroad;

(2) the establishment of the Interagency Task Force, chaired by the Director of the White House Office, to serve as the primary mechanism through which the heads of Federal agencies work together to develop and implement the Strategy;

(3) the establishment of the Office of Climate Change Technology within the Department of Energy—

(A) to manage, as its primary responsibility, an innovative research and development program that focuses on the bold, breakthrough technologies that are critical to the long-term stabilization of greenhouse gas concentrations in the atmosphere; and

(B) to provide analytical support and data to the White House Office, other agencies, and the public;

(4) the establishment of an independent review board—

(A) to review the Strategy and annually assess United States and international progress toward the goal of stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system; and

(B) to assess—

(i) the performance of each Federal agency that has responsibilities under the Strategy; and

(ii) the adequacy of the budget of each such Federal agency to fulfill the responsibilities of the Federal agency under the Strategy; and

(5) the establishment of offices in, or the carrying out of activities by, the Department of Agriculture, the Department of Transportation, the Department of Commerce, the Environmental Protection Agency, and other Federal agencies as necessary to carry out this title.

SEC. 1014. DEFINITIONS.

In this title:

(1) CLIMATE-FRIENDLY TECHNOLOGY.—The term ''climate-friendly technology'' means any energy supply or end-use technology that, over the life of the technology and compared to similar technology in commercial use as of the date of enactment of this Act—

(A) results in reduced emissions of greenhouse gases;

(B) may substantially lower emissions of other pollutants; and

(C) may generate substantially smaller or less hazardous quantities of solid or liquid waste.

(2) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(3) DEPARTMENT OFFICE.—The term ''Department Office'' means the Office of Climate Change Technology of the Department established by section 1017(a).

(4) FEDERAL AGENCY.—The term ''Federal agency'' has the meaning given the term ''agency'' in section 551 of title 5, United States Code.

(5) GREENHOUSE GAS.—The term ''greenhouse gas'' means—

(A) an anthropogenic gaseous constituent of the atmosphere (including carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and tropospheric ozone) that absorbs and re-emits infrared radiation and influences climate; and

(B) an anthropogenic aerosol (such as black soot) that absorbs solar radiation and influences climate.

(6) INTERAGENCY TASK FORCE.—The term ''Interagency Task Force'' means the United States Climate Change Response Interagency Task Force established under section 1016(d).

(7) KEY ELEMENT.—The term ''key element'', with respect to the Strategy, means—

(A) definition of interim emission mitigation levels, that, coupled with specific mitigation approaches and after taking into account actions by other nations (if any), would result in stabilization of greenhouse gas concentrations;

(B) technology development, including—

(i) a national commitment to double energy research and development by the United States public and private sectors; and

(ii) in carrying out such research and development, a national commitment to provide a high degree of emphasis on bold, breakthrough technologies that will make possible a profound transformation of the energy, transportation, industrial, agricultural, and building sectors of the United States;

(C) climate adaptation research that—

(i) focuses on response actions necessary to adapt to climate change that may have already occurred;

(ii) focuses on response actions necessary to adapt to climate change that may occur under any future climate change scenario; and

(D) climate science research that—

(i) builds on the substantial scientific understanding of climate change that exists as of the date of enactment of this Act; and

(ii) focuses on resolving the remaining scientific, technical, and economic uncertainties to aid in the development of sound response strategies.

(8) QUALIFIED INDIVIDUAL.—

(A) IN GENERAL.—The term ''qualified individual'' means an individual who has demonstrated expertise and leadership skills to draw on other experts in diverse fields of knowledge that are relevant to addressing the climate change response challenge.

(B) FIELDS OF KNOWLEDGE.—The fields of knowledge referred to in subparagraph (A) are—

(i) the science of primary and secondary climate change impacts;

(ii) energy and environmental economics;

(iii) technology transfer and diffusion;

(iv) the social dimensions of climate change;

(v) climate change adaptation strategies;

(vi) fossil, nuclear, and renewable energy technology;

(vii) energy efficiency and energy conservation;

(viii) energy systems integration;

(ix) engineered and terrestrial carbon sequestration;

(x) transportation, industrial, and building sector concerns;

(xi) regulatory and market-based mechanisms for addressing climate change;

(xii) risk and decision analysis;

(xiii) strategic planning; and

(xiv) the international implications of climate change response strategies.

(9) REVIEW BOARD.—The term ''Review Board'' means the United States Climate Change Response Strategy Review Board established by section 1019.

(10) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(11) STABILIZATION OF GREENHOUSE GAS CONCENTRATIONS.—The term ''stabilization of greenhouse gas concentrations'' means the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, recognizing that such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner, as contemplated by the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

(12) STRATEGY.—The term ''Strategy'' means the United States Climate Change Response Strategy developed under section 1015.

(13) WHITE HOUSE OFFICE.—The term ''White House Office'' means the National Office of Climate Change Response of the Executive Office of the President established by section 1016(a).

SEC. 1015. UNITED STATES CLIMATE CHANGE RESPONSE STRATEGY.

(a) IN GENERAL.—The Director of the White House Office shall develop the United States Climate Change Response Strategy, which shall—

(1) have the long-term goal of stabilization of greenhouse gas concentrations through actions taken by the United States and other nations;

(2) recognize that accomplishing the long-term goal of stabilization will take from many decades to more than a century, but acknowledging that significant actions must begin in the near term;

(3) build on the 4 key elements;

(4) be developed on the basis of an examination of a broad range of emissions levels and dates for achievement of those levels (including those evaluated by the Intergovernmental Panel on Climate Change and those consistent with U.S. treaty commitments) that, after taking into account by actions other nations (if any), would culminate in the stabilization of greenhouse gas concentrations;

(5) consider the broad range of activities and actions that can be taken by United States entities to reduce, avoid, or sequester greenhouse gas emissions both within the United States and in other nations through the use of market mechanisms, which may include but not limited to mitigation activities, terrestrial sequestration, earning offsets through carbon capture or project-based activities, trading of emissions credits in domestic and international markets, and the application of the resulting credits from any of the above within the United States;

(6) minimize any adverse short-term and long-term social, economic, national security, and environmental impacts, including ensuring that the strategy is developed in an economically and environmentally sound manner;

(7) incorporate mitigation approaches leading to the development and deployment of advanced technologies and practices that will reduce, avoid, or sequester greenhouse gas emissions;

(8) recognize that the climate change response strategy is intended to guide the nation's effort to address climate change, but it shall not create a legal obligation on the part of any person or entity other than the duties of the Director of the White House Office and Interagency Task Force in the development of the strategy;

(9) be consistent with the goals of energy, transportation, industrial, agricultural, forestry, environmental, economic, and other relevant policies of the United States;

(10) be consistent with the goals of energy, transportation, industrial, agricultural, forestry, environmental, and other relevant policies of the United States;

(11) have a scope that considers the totality of United States public, private, and public-private sector actions that bear on the long-term goal;

(12) be based on an evaluation of a wide range of approaches for achieving the long-term goal, including evaluation of—

(A) a variety of cost-effective Federal and State policies, programs, standards, and incentives;

(B) policies that integrate and promote innovative, market-based solutions in the United States and in foreign countries; and

(C) participation in other international institutions, or in the support of international activities, that are established or conducted to facilitate stabilization of greenhouse gas concentrations;

(13) in the final recommendations of the Strategy, emphasize response strategies that achieve the long-term goal and provide specific recommendations concerning—

(A) measures determined to be appropriate for short-term implementation, giving preference to cost-effective and technologically feasible measures that will—

(i) produce measurable net reductions in United States emissions that lead toward achievement of the long-term goal; and

(ii) minimize any adverse short-term and long-term economic, environmental, national security, and social impacts on the United States;

(B) the development of technologies that have the potential for long-term implementation—

(i) giving preference to technologies that have the potential to reduce significantly the overall cost of stabilization of greenhouse gas concentrations; and

(ii) considering a full range of energy sources, energy conversion and use technologies, and efficiency options;

(C) such changes in institutional and technology systems as are necessary to adapt to climate change in the short-term and the long-term;

(D) such review, modification, and enhancement of the scientific, technical, and economic research efforts of the United States, and improvements to the data resulting from research, as are appropriate to improve the accuracy of predictions concerning climate change and the economic and social costs and opportunities relating to climate change; and

(E) changes that should be made to project and grant evaluation criteria under other Federal research and development programs so that those criteria do not inhibit development of climate-friendly technologies;

(14) be developed in a manner that provides for meaningful participation by, and consultation among, Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties in accordance with subsections (b)(4)(C)(iv)(II) and (d)(3)(B)(iii) of section 1016;

(15) address how the United States should engage State, tribal, and local governments in developing and carrying out a response to climate change;

(16) promote, to the maximum extent practicable, public awareness, outreach, and information-sharing to further the understanding of the full range of climate change-related issues;

(17) provide a detailed explanation of how the measures recommended by the Strategy will ensure that they do not result in serious harm to the economy of the United States;

(18) provide a detailed explanation of how the measures recommended by the Strategy will achieve the long-term goal of stabilization of greenhouse gas concentrations;

(19) include any recommendations for legislative and administrative actions necessary to implement the Strategy;

(20) serve as a framework for climate change response actions by all Federal agencies;

(21) recommend which Federal agencies are, or should be, responsible for the various aspects of implementation of the Strategy and any budgetary implications;

(22) address how the United States should engage foreign governments in developing an international response to climate change; and

(23) be subject to review by an independent review board in accordance with section 1019.

(b) SUBMISSION TO CONGRESS.—Not later than 1 year after the date of enactment of this title, the President shall submit to Congress the Strategy.

(c) UPDATING.—Not later than 2 years after the date of submission of the Strategy to Congress under subsection (b), and at the end of each 2-year period thereafter, the President shall submit to Congress an updated version of the Strategy.

(d) PROGRESS REPORTS.—Not later than 1 year after the date of submission of the Strategy to Congress under subsection (b), and at the end of each 1-year period thereafter, the President shall submit to Congress a report that—

(1) describes the progress on implementation of the Strategy; and

(2) provides recommendations for improvement of the Strategy and the implementation of the Strategy.

(e) ALIGNMENT WITH ENERGY, TRANSPORTATION, INDUSTRIAL, AGRICULTURAL, FORESTRY, AND OTHER POLICIES.—The President, the Director of the White House Office, the Secretary, and the other members of the Interagency Task Force shall work together to align the actions carried out under the Strategy and actions associated with the energy, transportation, industrial, agricultural, forestry, and other relevant policies of the United States so that the objectives of both the Strategy and the policies are met without compromising the climate change-related goals of the Strategy or the goals of the policies.

SEC. 1016. NATIONAL OFFICE OF CLIMATE CHANGE RESPONSE OF THE EXECUTIVE OFFICE OF THE PRESIDENT.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established, within the Executive Office of the President, the National Office of Climate Change Response.

(2) FOCUS.—The White House Office shall have the focus of achieving the long-term goal of stabilization of greenhouse gas concentrations while minimizing adverse short-term and long-term economic and social impacts.

(3) DUTIES.—Consistent with paragraph (2), the White House Office shall—

(A) establish policies, objectives, and priorities for the Strategy;

(B) in accordance with subsection (d), establish the Interagency Task Force to serve as the primary mechanism through which the heads of Federal agencies shall assist the Director of the White House Office in developing and implementing the Strategy;

(C) to the maximum extent practicable, ensure that the Strategy is based on objective, quantitative analysis, drawing on the analytical capabilities of Federal and State agencies, especially the Department Office;

(D) advise the President concerning necessary changes in organization, management, budgeting, and personnel allocation of Federal agencies involved in climate change response activities; and

(E) advise the President and notify a Federal agency if the policies and discretionary programs of the agency are not well aligned with, or are not contributing effectively to, the long-term goal of stabilization of greenhouse gas concentrations.

(b) DIRECTOR OF THE WHITE HOUSE OFFICE.—

(1) IN GENERAL.—The White House Office shall be headed by a Director, who shall report directly to the President.

(2) APPOINTMENT.—The Director of the White House Office shall be a qualified individual appointed by the President, by and with the advice and consent of the Senate.

(3) DUTIES OF THE DIRECTOR OF THE WHITE HOUSE OFFICE.—

(A) STRATEGY.—In accordance with section 1015, the Director of the White House Office shall coordinate the development and updating of the Strategy.

(B) INTERAGENCY TASK FORCE.—The Director of the White House Office shall serve as Chairperson of the Interagency Task Force.

(C) ADVISORY DUTIES.—

(i) CLIMATE, ENERGY, TRANSPORTATION, INDUSTRIAL, AGRICULTURAL, BUILDING, FORESTRY, AND OTHER PROGRAMS.—The Director of the White House Office, using an integrated perspective considering the totality of actions in the United States, shall advise the President and the heads of Federal agencies on—

(I) the extent to which United States energy, transportation, industrial, agricultural, forestry, building, and other relevant programs are capable of producing progress on the long-term goal of stabilization of greenhouse gas concentrations; and

(II) the extent to which proposed or newly created energy, transportation, industrial, agricultural, forestry, building, and other relevant programs positively or negatively affect the ability of the United States to achieve the long-term goal of stabilization of greenhouse gas concentrations.

(ii) TAX, TRADE, AND FOREIGN POLICIES.—The Director of the White House Office, using an integrated perspective considering the totality of actions in the United States, shall advise the President and the heads of Federal agencies on—

(I) the extent to which the United States tax policy, trade policy, and foreign policy are capable of producing progress on the long-term goal of stabilization of greenhouse gas concentrations; and

(II) the extent to which proposed or newly created tax policy, trade policy, and foreign policy positively or negatively affect the ability of the United States to achieve the long-term goal of stabilization of greenhouse gas concentrations.

(iii) INTERNATIONAL TREATIES.—The Secretary of State, acting in conjunction with the Interagency Task Force and using the analytical tools available to the White House Office, shall provide to the Director of the White House Office an opinion that—

(I) specifies, to the maximum extent practicable, the economic and environmental costs and benefits of any proposed international treaties or components of treaties that have an influence on greenhouse gas management; and

(II) assesses the extent to which the treaties advance the long-term goal of stabilization of greenhouse gas concentrations, while minimizing adverse short-term and long-term economic and social impacts and considering other impacts.

(iv) CONSULTATION.—

(I) WITH MEMBERS OF INTERAGENCY TASK FORCE.—To the extent practicable and appropriate, the Director of the White House Office shall consult with all members of the Interagency Task Force and other interested parties before providing advice to the President.

(II) WITH OTHER INTERESTED PARTIES.—The Director of the White House Office shall establish a process for obtaining the meaningful participation of Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties in the formulation of advice to be provided to the President.

(D) PUBLIC EDUCATION, AWARENESS, OUTREACH, AND INFORMATION-SHARING.—The Director of the White House Office, to the maximum extent practicable, shall promote public awareness, outreach, and information-sharing to further the understanding of the full range of climate change-related issues.

(4) ANNUAL REPORTS.—The Director of the White House Office, in consultation with the Interagency Task Force and other interested parties, shall prepare an annual report for submission by the President to Congress that—

(A) assesses progress in implementation of the Strategy;

(B) assesses progress, in the United States and in foreign countries, toward the long-term goal of stabilization of greenhouse gas concentrations;

(C) assesses progress toward meeting climate change-related international obligations;

(D) makes recommendations for actions by the Federal Government designed to close any gap between progress-to-date and the measures that are necessary to achieve the long-term goal of stabilization of greenhouse gas concentrations; and

(E) addresses the totality of actions in the United States that relate to the 4 key elements.

(5) ANALYSIS.—During development of the Strategy, preparation of the annual reports submitted under paragraph (5), and provision of advice to the President and the heads of Federal agencies, the Director of the White House Office shall place significant emphasis on the use of objective, quantitative analysis, taking into consideration any uncertainties associated with the analysis.

(c) STAFF.—

(1) IN GENERAL.—The Director of the White House Office shall employ a professional staff of not more than 25 individuals to carry out the duties of the White House Office.

(2) INTERGOVERNMENTAL PERSONNEL AND FELLOWSHIPS.—The Director of the White House Office may use the authority provided by the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4701 et seq.) and subchapter VI of chapter 33 of title 5, United States Code, and fellowships, to obtain staff from academia, scientific bodies, nonprofit organizations, and national laboratories, for appointments of a limited term.

(d) INTERAGENCY TASK FORCE.—

(1) IN GENERAL.—The Director of the White House Office shall establish the United States Climate Change Response Interagency Task Force.

(2) COMPOSITION.—The Interagency Task Force shall be composed of—

(A) the Director of the White House Office, who shall serve as Chairperson;

(B) the Secretary of State;

(C) the Secretary;

(D) the Secretary of Commerce;

(E) the Secretary of the Treasury;

(F) the Secretary of Transportation;

(G) the Secretary of Agriculture;

(H) the Administrator of the Environmental Protection Agency;

(I) the Administrator of the Agency for International Development;

(J) the United States Trade Representative;

(K) the National Security Advisor;

(L) the Chairman of the Council of Economic Advisers;

(M) the Chairman of the Council on Environmental Quality;

(N) the Director of the Office of Science and Technology Policy;

(O) the Chairperson of the Subcommittee on Global Change Research (which performs the functions of the Committee on Earth and Environmental Sciences established by section 102 of the Global Change Research Act of 1990 (15 U.S.C. 2932)); and

(P) the heads of such other Federal agencies as the Chairperson determines should be members of the Interagency Task Force.

(3) STRATEGY.—

(A) IN GENERAL.—The Interagency Task Force shall serve as the primary forum through which the Federal agencies represented on the Interagency Task Force jointly—

(i) assist the Director of the White House Office in developing and updating the Strategy; and

(ii) assist the Director of the White House Office in preparing annual reports under subsection (b)(5).

(B) REQUIRED ELEMENTS.—In carrying out subparagraph (A), the Interagency Task Force shall—

(i) take into account the long-term goal and other requirements of the Strategy specified in section 1015(a);

(ii) consult with State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties; and

(iii) build consensus around a Strategy that is based on strong scientific, technical, and economic analyses.

(4) WORKING GROUPS.—The Chairperson of the Interagency Task Force may establish such topical working groups as are necessary to carry out the duties of the Interagency Task Force.

(e) PROVISION OF SUPPORT STAFF.—In accordance with procedures established by the Chairperson of the Interagency Task Force, the Federal agencies represented on the Interagency Task Force shall provide staff from the agencies to support information, data collection, and analyses required by the Interagency Task Force.

(f) HEARINGS.—On request of the Chairperson, the Interagency Task Force may hold such hearings, meet and act at such times and places, take such testimony, and receive such evidence as the Interagency Task Force considers to be appropriate.

SEC. 1017. TECHNOLOGY INNOVATION PROGRAM IMPLEMENTED THROUGH THE OFFICE OF CLIMATE CHANGE TECHNOLOGY OF THE DEPARTMENT OF ENERGY.

(a) ESTABLISHMENT OF OFFICE OF CLIMATE CHANGE TECHNOLOGY OF THE DEPARTMENT OF ENERGY.—

(1) IN GENERAL.—There is established, within the Department, the Office of Climate Change Technology.

(2) DUTIES.—The Department Office shall—

(A) manage an energy technology research and development program that directly supports the Strategy by—

(i) focusing on high-risk, bold, breakthrough technologies that—

(I) have significant promise of contributing to the national climate change policy of long-term stabilization of greenhouse gas concentrations by—

(aa) mitigating the emissions of greenhouse gases;

(bb) removing and sequestering greenhouse gases from emission streams; or

(cc) removing and sequestering greenhouse gases from the atmosphere;

(II) are not being addressed significantly by other Federal programs; and

(III) would represent a substantial advance beyond technology available on the date of enactment of this title;

(ii) forging fundamentally new research and development partnerships among various Department, other Federal, and State programs, particularly between basic science and energy technology programs, in cases in which such partnerships have significant potential to affect the ability of the United States to achieve stabilization of greenhouse gas concentrations at the lowest possible cost;

(iii) forging international research and development partnerships that are in the interests of the United States and make progress on stabilization of greenhouse gas concentrations;

(iv) making available, through monitoring, experimentation, and analysis, data that are essential to proving the technical and economic viability of technology central to addressing climate change; and

(v) transitioning research and development programs to other program offices of the Department once such a research and development program crosses the threshold of high-risk research and moves into the realm of more conventional technology development;

(B) prepare annual reports in accordance with subsection (b)(6);

(C) identify the total contribution of all Department programs to climate change response;

(D) provide substantial analytical support to the White House Office, particularly support in the development of the Strategy and associated progress reporting; and

(E) advise the Secretary on climate change-related issues, including necessary changes in Department organization, management, budgeting, and personnel allocation in the programs involved in climate change response-related activities.

(b) DIRECTOR OF THE DEPARTMENT OFFICE.—

(1) IN GENERAL.—The Department Office shall be headed by a Director, who shall report directly to the Secretary.

(2) APPOINTMENT.—The Director of the Department Office shall be an employee of the Federal Government who is a qualified individual appointed by the President.

(3) TERM.—The Director of the Department Office shall be appointed for a term of 4 years.

(4) VACANCIES.—A vacancy in the position of the Director of the Department Office shall be filled in the same manner as the original appointment was made.

(5) DUTIES OF THE DIRECTOR OF THE DEPARTMENT OFFICE.—

(A) TECHNOLOGY DEVELOPMENT.—The Director of the Department Office shall manage the energy technology research and development program described in subsection (a)(2)(A).

(B) STRATEGY.—The Director of the Department Office shall support development of the Strategy through the provision of staff and analytical support.

(C) INTERAGENCY TASK FORCE.—Through active participation in the Interagency Task Force, the Director of the Department Office shall—

(i) based on the analytical capabilities of the Department Office, share analyses of alternative climate change response strategies with other members of the Interagency Task Force to assist all members in understanding—

(I) the scale of the climate change response challenge; and

(II) how the actions of the Federal agencies of the members positively or negatively contribute to climate change solutions; and

(ii) determine how the energy technology research and development program described in subsection (a)(2)(A) can be designed for maximum impact on the long-term goal of stabilization of greenhouse gas concentrations.

(D) TOOLS, DATA, AND CAPABILITIES.—The Director of the Department Office shall foster the development of tools, data, and capabilities to ensure that—

(i) the United States has a robust capability for evaluating alternative climate change response scenarios; and

(ii) the Department Office provides long-term analytical continuity during the terms of service of successive Presidents.

(E) ADVISORY DUTIES.—The Director of the Department Office shall advise the Secretary on all aspects of climate change response.

(6) ANNUAL REPORTS.—The Director of the Department Office shall prepare an annual report for submission by the Secretary to Congress and the White House Office that—

(A) assesses progress toward meeting the goals of the energy technology research and development program described in subsection (a)(2)(A);

(B) assesses the activities of the Department Office;

(C) assesses the contributions of all energy technology research and development programs of the Department (including science programs) to the long-term goal and other requirements of the Strategy specified in section 1015(a); and

(D) makes recommendations for actions by the Department and other Federal agencies to address the components of technology development that are necessary to support the Strategy.

(7) ANALYSIS.—During development of the Strategy, annual reports submitted under paragraph (6), and advice to the Secretary, the Director of the Department Office shall place significant emphasis on the use of objective, quantitative analysis, taking into consideration any associated uncertainties.

(c) STAFF.—The Director of the Department Office shall employ a professional staff of not more than 25 individuals to carry out the duties of the Department Office.

(d) INTERGOVERNMENTAL PERSONNEL AND FELLOWSHIPS.—The Department Office may use the authority provided by the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4701 et seq.), subchapter VI of chapter 33 of title 5, United States Code, and other Departmental personnel authorities, to obtain staff from academia, scientific bodies, nonprofit organizations, industry, and national laboratories, for appointments of a limited term.

(e) RELATIONSHIP TO OTHER DEPARTMENT PROGRAMS.—Each project carried out by the Department Office shall be—

(1) initiated only after consultation with 1 or more other appropriate program offices of the Department that support research and development in areas relating to the project;

(2) managed by the Department Office; and

(3) in the case of a project that reaches a sufficient level of maturity, with the concurrence of the Department Office and an appropriate office described in paragraph (1), transferred to the appropriate office, along with the funds necessary to continue the project to the point at which non-Federal funding can provide substantial support for the project.

(f) ANALYSIS OF STRATEGIC CLIMATE CHANGE RESPONSE.—

(1) IN GENERAL.—

(A) GOAL.—The Department Office shall foster the development and application of

advanced computational tools, data, and capabilities that, together with the capabilities of other federal agencies, support integrated assessment of alternative climate change response scenarios and implementation of the Strategy.

(B) PARTICIPATION AND SUPPORT.—Projects supported by the Department Office may include participation of, and be supported by, other Federal agencies that have a role in the development, commercialization, or transfer of energy, transportation, industrial, agricultural, forestry, or other climate change-related technology.

(2) PROGRAMS.—

(A) IN GENERAL.—The Department Office shall—

(i) develop and maintain core analytical competencies and complex, integrated computational modeling capabilities that, together with the capabilities of other Federal agencies, are necessary to support the design and implementation of the Strategy; and

(ii) track United States and international progress toward the long-term goal of stabilization of greenhouse gas concentrations.

(B) INTERNATIONAL CARBON DIOXIDE SEQUESTRATION MONITORING AND DATA PROGRAM.—In consultation with Federal, State, academic, scientific, private sector, nongovernmental, tribal, and international carbon capture and sequestration technology programs, the Department Office shall design and carry out an international carbon dioxide sequestration monitoring and data program to collect, analyze, and make available the technical and economic data to ascertain—

(i) whether engineered sequestration and terrestrial sequestration will be acceptable technologies from regulatory, economic, and international perspectives;

(ii) whether carbon dioxide sequestered in geological formations or ocean systems is stable and has inconsequential leakage rates on a geologic time-scale; and

(iii) the extent to which forest, agricultural, and other terrestrial systems are suitable carbon sinks.

(3) AREAS OF EXPERTISE.—

(A) IN GENERAL.—The Department Office shall develop and maintain expertise in integrated assessment, modeling, and related capabilities necessary—

(i) to understand the relationship between natural, agricultural, industrial, energy, and economic systems;

(ii) to design effective research and development programs; and

(iii) to develop and implement the Strategy.

(B) TECHNOLOGY TRANSFER AND DIFFUSION.—The expertise described in clause (i) shall include knowledge of technology transfer and technology diffusion in United States markets and foreign markets.

(4) DISSEMINATION OF INFORMATION.—The Department Office shall ensure, to the maximum extent practicable, that technical and scientific knowledge relating to greenhouse gas emission reduction, avoidance, and sequestration is broadly disseminated through publications, fellowships, and training programs.

(5) ASSESSMENTS.—In a manner consistent with the Strategy, the Department shall conduct assessments of deployment of climate-friendly technology.

(6) USE OF PRIVATE SECTOR FUNDING.—

(A) IN GENERAL.—The Department Office shall create an operating model that allows for collaboration, division of effort, and cost sharing with industry on individual climate change response projects.

(B) REQUIREMENTS.—Although cost sharing in some cases may be appropriate, the Department Office shall focus on long-term high-risk research and development and should not make industrial partnerships or cost sharing a requirement, if such a requirement would bias the activities of the Department Office toward incremental innovations.

(C) REEVALUATION ON TRANSITION.—At such time as any bold, breakthrough research and development program reaches a sufficient level of technological maturity such that the program is transitioned to a program office of the Department other than the Department Office, the cost-sharing requirements and criteria applicable to the program should be reevaluated.

(D) PUBLICATION IN FEDERAL REGISTER.—Each cost-sharing agreement entered into under this subparagraph shall be published in the Federal Register.

SEC. 1018. ADDITIONAL OFFICES AND ACTIVITIES.

The Secretary of Agriculture, the Secretary of Transportation, the Secretary of Commerce, the Administrator of the Environmental Protection Agency, and the heads of other Federal agencies may establish such offices and carry out such activities, in addition to those established or authorized by this Act, as are necessary to carry out this Act.

SEC. 1019. UNITED STATES CLIMATE CHANGE RESPONSE STRATEGY REVIEW BOARD.

(a) ESTABLISHMENT.—There is established as an independent establishment within the executive branch the United States Climate Change Response Strategy Review Board.

(b) MEMBERSHIP.—

(1) COMPOSITION.—The Review Board shall consist of 11 members who shall be appointed, not later than 90 days after the date of enactment of this Act, by the President by and with the advice and consent of the Senate, from among qualified individuals nominated by the National Academy of Sciences in accordance with paragraph (2).

(2) NOMINATIONS.—Not later than 60 days after the date of enactment of this Act, after taking into strong consideration the guidance and recommendations of a broad range of scientific and technical societies that have the capability of recommending qualified individuals, the National Academy of Sciences shall nominate for appointment to the Review Board not fewer than 22 individuals who—

(A) are—

(i) qualified individuals; or

(ii) experts in a field of knowledge specified in section 1014(9)(B); and

(B) as a group represent broad, balanced expertise.

(3) PROHIBITION ON FEDERAL GOVERNMENT EMPLOYMENT.—A member of the Review Board shall not be an employee of the Federal Government.

(4) TERMS; VACANCIES.—

(A) TERMS.—

(i) IN GENERAL.—Subject to clause (ii), each member of the Review Board shall be appointed for a term of 4 years.

(ii) INITIAL TERMS.—

(I) COMMENCEMENT DATE.—The term of each member initially appointed to the Review Board shall commence 120 days after the date of enactment of this title.

(II) TERMINATION DATE.—Of the 11 members initially appointed to the Review Board, 5 members shall be appointed for a term of 2 years and 6 members shall be appointed for a term of 4 years, to be designated by the President at the time of appointment.

(B) VACANCIES.—

(i) IN GENERAL.—A vacancy on the Review Board shall be filled in the manner described in this subparagraph.

(ii) NOMINATIONS BY THE NATIONAL ACADEMY OF SCIENCES.—Not later than 60 days after the date on which a vacancy commences, the National Academy of Sciences shall—

(I) after taking into strong consideration the guidance and recommendations of a broad range of scientific and technical societies that have the capability of recommending qualified individuals, nominate, from among qualified individuals, not fewer than 2 individuals to fill the vacancy; and

(II) submit the names of the nominees to the President.

(iii) SELECTION.—Not later than 30 days after the date on which the nominations under clause (ii) are submitted to the President, the President shall select from among the nominees an individual to fill the vacancy.

(iv) SENATE CONFIRMATION.—An individual appointed to fill a vacancy on the Review Board shall be appointed by and with the advice and consent of the Senate.

(5) APPLICABILITY OF ETHICS IN GOVERNMENT ACT OF 1978.—A member of the Review Board shall be deemed to be an individual subject to the Ethics in Government Act of 1978 (5 U.S.C. App.).

(6) CHAIRPERSON; VICE CHAIRPERSON.—The members of the Review Board shall select a Chairperson and a Vice Chairperson of the Review Board from among the members of the Review Board.

(c) DUTIES.—

(1) IN GENERAL.—Not later than 180 days after the date of submission of the initial Strategy under section 1015(b), each updated version of the Strategy under section 1015(c), and each progress report under section 1015(d), the Review Board shall submit to the President, Congress, and the heads of Federal agencies as appropriate a report assessing the adequacy of the Strategy or report.

(2) COMMENTS.—In reviewing the Strategy or a report under paragraph (1), the Review Board shall consider and comment on—

(A) the adequacy of effort and the appropriateness of focus of the totality of all public, private, and public-private sector actions of the United States with respect to the 4 key elements;

(B) the extent to which actions of the United States, with respect to climate change, complement or leverage international research and other efforts designed to manage global emissions of greenhouse gases, to further the long-term goal of stabilization of greenhouse gas concentrations;

(C) the funding implications of any recommendations made by the Review Board; and

(D)(i) the effectiveness with which each Federal agency is carrying out the responsibilities of the Federal agency with respect to the short-term and long-term greenhouse gas management goals; and

(ii) the adequacy of the budget of each such Federal agency to carry out those responsibilities.

(3) ADDITIONAL RECOMMENDATIONS.—

(A) IN GENERAL.—Subject to subparagraph (B), the Review Board, at the request of the President or Congress, may provide recommendations on additional climate change-related topics.

(B) SECONDARY DUTY.— The provision of recommendations under subparagraph (A) shall be a secondary duty to the primary duty of the Review Board of providing independent review of the Strategy and the reports under paragraphs (1) and (2).

(d) POWERS.—

(1) HEARINGS.—

(A) IN GENERAL.—On request of the Chairperson or a majority of the members of the Review Board, the Review Board may hold such hearings, meet and act at such times and places, take such testimony, and receive such evidence as the Review Board considers to be appropriate.

(B) ADMINISTRATION OF OATHS.—Any member of the Review Board may administer an oath or affirmation to any witness that appears before the Review Board.

(2) PRODUCTION OF DOCUMENTS.—

(A) IN GENERAL.—On request of the Chairperson or a majority of the members of the Review Board, and subject to applicable law, the Secretary or head of a Federal agency represented on the Interagency Task Force, or a contractor of such an agency, shall provide the Review Board with such records, files, papers, data, and information as are necessary to respond to any inquiry of the Review Board under this Act.

(B) INCLUSION OF WORK IN PROGRESS.—Subject to applicable law, information obtainable under subparagraph (A)—

(i) shall not be limited to final work products; but

(ii) shall include draft work products and documentation of work in progress.

(3) POSTAL SERVICES.—The Review Board may use the United States mails in the same manner and under the same conditions as other agencies of the Federal Government.

(e) COMPENSATION OF MEMBERS.—A member of the Review Board 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 Review Board.

(f) TRAVEL EXPENSES.—A member of the Review Board shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the Review Board.

(g) STAFF.—

(1) IN GENERAL.—The Chairperson of the Review Board may, without regard to the provisions of title 5, United States Code, regarding appointments in the competitive service, appoint and terminate an executive director and such other additional personnel as are necessary to enable the Review Board to perform the duties of the Review Board.

(2) CONFIRMATION OF EXECUTIVE DIRECTOR.—The employment of an executive director shall be subject to confirmation by the Review Board.

(3) COMPENSATION.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the Chairperson of the Review Board may fix the compensation of the executive director and other personnel without regard to the provisions of chapter 51 and subchapter III of chapter 53 of title 5, United States Code, relating to classification of positions and General Schedule pay rates.

(B) MAXIMUM RATE OF PAY.—The rate of pay for the executive director and other personnel shall not exceed the rate payable for level V of the Executive Schedule under section 5316 of title 5, United States Code.

(h) PROCUREMENT OF TEMPORARY AND INTERMITTENT SERVICES.—The Chairperson of the Review Board may procure temporary and intermittent services in accordance with section 3109(b) of title 5, United States Code, at rates for individuals that do not exceed the daily equivalent of the annual rate of basic pay prescribed for level V of the Executive Schedule under section 5316 of that title.

SEC. 1020. AUTHORIZATION OF APPROPRIATIONS.

(a) WHITE HOUSE OFFICE.—

(1) USE OF AVAILABLE APPROPRIATIONS.—From funds made available to Federal agencies for the fiscal year in which this Title is enacted, the President shall provide such sums as are necessary to carry out the duties of the White House Office under this title until the date on which funds are made available under paragraph (2).

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the White House Office to carry out the duties of the White House Office under this Title $5,000,000 for each of fiscal years 2003 through 2011, to remain available through September 30, 2011.

(b) DEPARTMENT OFFICE.—

(1) USE OF AVAILABLE APPROPRIATIONS.—From funds made available to Federal agencies for the fiscal year in which this title is enacted, the President shall provide such sums as are necessary to carry out the duties of the Department Office under this Title until the date on which funds are made available under paragraph (2).

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Department Office to carry out the duties of the Department Office under this title $4,750,000,000 for the period of fiscal years 2003 through 2011, to remain available through September 30, 2011.

(c) REVIEW BOARD.—

(1) USE OF AVAILABLE APPROPRIATIONS.—From funds made available to Federal agencies for the fiscal year in which this title is enacted, the President shall provide such sums as are necessary to carry out the duties of the Review Board under this title until the date on which funds are made available under paragraph (2).

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Review Board to carry out the duties of the Review Board under this title $3,000,000 for each of fiscal years 2003 through 2011, to remain available until expended.

(d) ADDITIONAL AMOUNTS.— Amounts authorized to be appropriated under this section shall be in addition to—

(1) amounts made available to carry out the United States Global Change Research Program under the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.); and

(2) amounts made available under other provisions of law for energy research and development.

Subtitle C—Science and Technology Policy

SEC. 1031. GLOBAL CLIMATE CHANGE IN THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY.

Section 101(b) of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601(b)) is amended—

(1) by redesignating paragraphs (7) through (13) as paragraphs (8) through (14), respectively; and

(2) by inserting after paragraph (6) the following:

''(7) improving efforts to understand, assess, predict, mitigate, and respond to global climate change;''.

SEC. 1032. ESTABLISHMENT OF ASSOCIATE DIRECTOR FOR GLOBAL CLIMATE CHANGE.

Section 203 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6612) is amended—

(1) by striking ''four'' in the second sentence and inserting ''five''; and

(2) by striking ''title.'' in the second sentence and inserting ''title, one of whom shall be responsible for global climate change science and technology under the Office of Science and Technology Policy.''.

Subtitle D—Miscellaneous Provisions

SEC. 1041. ADDITIONAL INFORMATION FOR REGULATORY REVIEW.

In each case that an agency prepares and submits a Statement of Energy Effects pursuant to Executive Order 13211 of May 18, 2001 (relating to actions concerning regulations that significantly affect energy supply, distribution, or use), or as part of compliance with Executive Order 12866 of September 30, 1993 (relating to regulatory planning and review) or its successor, the agency shall also submit an estimate of the change in net annual greenhouse gas emissions resulting from the proposed significant energy action. In the case in which there is an increase in net annual greenhouse gas emissions as a result of the proposed significant energy action, the agency shall indicate what policies or measures will be undertaken to mitigate or offset the increased emissions.

SEC. 1042. GREENHOUSE GAS EMISSIONS FROM FEDERAL FACILITIES.

(a) METHODOLOGY.—

(1) IN GENERAL.—Not later than one year after the date of enactment of this section, the Secretary of Energy, Secretary of Agriculture, Secretary of Commerce, and Administrator of the Environmental Protection Agency shall publish a jointly developed methodology for preparing estimates of annual net greenhouse gas emissions from all Federally owned, leased, or operated facilities and emission sources, including mobile sources.

(2) INDIRECT AND OTHER EMISSIONS.—The methodology under paragraph (1) shall include emissions resulting from any Federal procurement action with an annual Federal expenditure of greater than $100 million, indirect emissions associated with Federal electricity consumption, and other emissions resulting from Federal actions that the heads of the agencies under paragraph (1) may jointly decide to include in the estimates.

(b) PUBLICATION.—Not later than 18 months after the date of enactment of this section, and annually thereafter, the Secretary of Energy shall publish an estimate of annual net greenhouse gas emissions from all Federally owned, leased, or operated facilities and emission sources, using the methodology published under subsection (a).

TITLE XI—NATIONAL GREENHOUSE GAS DATABASE

SEC. 1101. PURPOSE.

The purpose of this title is to establish a greenhouse gas inventory, reductions registry, and information system that—

(1) is complete, consistent, transparent, and accurate;

(2) will create reliable and accurate data that can be used by public and private entities to design efficient and effective greenhouse gas emission reduction strategies; and,

(3) will encourage and acknowledge greenhouse gas emissions reductions.

SEC. 1102. DEFINITIONS.

In this title—

(1) DATABASE.—The term ''database'' means the National Greenhouse Gas Database established under section 1104.

(2) DESIGNATED AGENCY OR AGENCIES.—The term ''Designated Agency or Agencies'' means the Department or Departments and/or Agency or Agencies given the responsibility for a function or program under the Memorandum of Agreement entered into pursuant to Section 1103.

(3) DIRECT EMISSIONS.—The term ''direct emissions'' means greenhouse gas emissions by an entity from a facility that is owned or controlled by that entity.

(4) ENTITY.—The term ''entity'' means—

(A) a person located in the United States; or

(B) a public or private entity, to the extent that the entity operates in the United States.

(5) FACILITY.—The term ''facility'' means all buildings, structures, or installations located on any one or more of contiguous or adjacent property or properties, or a fleet of 20 or more transportation vehicles, under common control of the same entity.

(6) GREENHOUSE GAS.—The term ''greenhouse gas'' means—

(A) carbon dioxide;

(B) methane;
(C) nitrous oxide;
(D) hydrofluororcarbons;
(E) perfluorocarbons; and
(F) sulfur hexafluoride.

(7) INDIRECT EMISSIONS.—The term 'indirect emissions' means greenhouse gas emissions that are a consequence of the activities of an entity but that are emitted from a facility owned or controlled by another entity and are not already reported as direct emissions by a covered entity.

(8) SEQUESTRATION.—The term 'sequestration' means the capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere, including through a biological or geologic method such as reforestation or an underground reservoir.

SEC. 1103. ESTABLISHMENT OF MEMORANDUM OF AGREEMENT.

(a) Not later than one year after the date of enactment of this title, the President, acting through the Chairman of the Council on Environmental Quality, shall direct the Department of Energy, the Department of Commerce, the Department of Agriculture, the Department of Transportation and the Environmental Protection Agency, to enter into a Memorandum of Agreement that will—

(1) recognize and maintain existing statutory and regulatory authorities, functions and programs that collect data on greenhouse gas emissions and effects and that are necessary for the operation of the National Greenhouse Gas Database;

(2) distribute additional responsibilities and activities identified by this title to Federal departments or agencies according to their mission and expertise and to maximize the use of existing resources; and

(3) provide for the comprehensive collection and analysis of data on the emissions related to product use, including fossil fuel and energy consuming appliances and vehicles.

(b) The Memorandum of Agreement entered into under subsection (a) shall, at a minimum, retain the following functions for the respective Departments and agencies:

(1) The Department of Energy shall be primarily responsible for developing, maintaining, and verifying the emissions reduction registry, under both this title and its authority under section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)).

(2) The Department of Commerce shall be primarily responsible for the development of measurement standards for emissions monitoring and verification technologies and methods to ensure that there is a consistent and technically accurate record of emissions, reductions and atmospheric concentrations of greenhouse gases for the database under this title.

(3) The Environmental Protection Agency shall be primarily responsible for emissions monitoring, measurement, verification and data collection, pursuant to this title and existing authority under Titles IV and VIII of the Clean Air Act, and including mobile source emissions information from implementation of the Corporate Average Fuel Economy program (49 U.S.C. Chapter 329), and the Agency's role in completing the national inventory for compliance with the United Nations Framework Convention on Climate Change.

(c) The Chairman shall publish a draft version of the Memorandum of Agreement in the Federal Register and solicit comments on it as soon as practicable and publish the final Memorandum of Agreement in the Federal Register not later than 15 months after the date of enactment of this title.

(d) The final Memorandum of Agreement shall not be subject to judicial review.

SEC. 1104. NATIONAL GREENHOUSE GAS DATABASE.

(a) ESTABLISHMENT.—The Designated Agency or Agencies, working in consultation with the private sector and nongovernmental organizations, shall establish, operate and maintain a database to be known as the National Greenhouse Gas Database to collect, verify, and analyze information on—

(1) greenhouse gas emissions by entities located in the United States; and

(2) greenhouse gas emission reductions by entities based in the United States.

(b) NATIONAL GREENHOUSE GAS DATABASE COMPONENTS.—The database shall consist of an inventory of greenhouse gas emissions and a registry of greenhouse gas emissions reductions.

(c) DEADLINE.—Not later than 2 years after the date of enactment of this title, the Designated Agency or Agencies shall promulgate a rule to implement a comprehensive system for greenhouse gas emissions reporting, inventorying and reductions registration. The Designated Agency or Agencies shall ensure that the system is designed to maximize completeness, transparency, and accuracy and to minimize measurement and reporting costs for covered entities.

(d) REQUIRED ELEMENTS OF DATABASE REPORTING SYSTEM.—

(1) MANDATORY REPORTING.—

(A) Beginning one year after promulgation of the final rule issued under subsection (c), each entity that exceeds the greenhouse gas emissions threshold in paragraph (2) shall report annually to the Designated Agency or Agencies, for inclusion in the National Greenhouse Gas Database, the entity-wide emissions of greenhouse gases in the previous calendar year. Such reports are due annually to the Designated Agency or Agencies, but must be submitted no later than April 30 of each calendar year in support of the previous years' emission reporting requirements.

(B) Each report submitted shall include—

(i) direct emissions from stationary sources;

(ii) direct emissions from vehicles owned or controlled by a covered entity;

(iii) direct emissions from any land use activities that release significant quantities of greenhouse gases;

(iv) indirect emissions from all outsourced activities, contract manufacturing, wastes transferred from the control of an entity, and other relevant instances, as determined to be practicable under the rule;

(v) indirect emissions from electricity, heat, and steam imported from another entity, as determined to be practicable under the rule;

(vi) the production, distribution or import of greenhouse gases listed under section 1102 by an entity; and

(vii) such other categories, which the designated Agency or Agencies determine by rule, after public notice and comment, should be included to accomplish the purposes of this title.

(C) Each report shall include total mass quantities for each greenhouse gas emitted, and in terms of carbon dioxide equivalent.

(D) Each report shall include the greenhouse gas emissions per unit of output by an entity, such as tons of carbon dioxide per kilowatt-hour or a similar metric.

(E) The first report shall be required to be submitted not later than April 30 of the fourth year after the date of enactment of this title.

(2) THRESHOLD FOR REPORTING.—

(A) An entity shall not be required to make a report under paragraph (1) unless—

(i) the total greenhouse gas emissions of at least one facility owned by an entity in the calendar year for reporting exceeds 10,000 metric tons of carbon dioxide equivalent, or a greater level as determined by rule; or

(ii) the total quantity of greenhouse gases produced, distributed or imported by the entity exceeds 10,000 metric tons of carbon dioxide equivalent, or a greater level as determined by rule.

(B) The final rule promulgated under section 1104(c) and subsequent revisions to that rule with respect to the threshold for reporting in subparagraph (A) shall capture information on no less than 75 percent of anthropogenic greenhouse gas emissions from entities.

(3) METHOD OF REPORTING.—Entity-wide emissions shall be reported at the facility level.

(4) ADDITIONAL VOLUNTARY REPORTING.—An entity may voluntarily report to the Designated Agency or Agencies, for inclusion in the registry portion of the national database—

(A) with respect to the preceding calendar year and any greenhouse gas emitted by the entity—

(i) project reductions from facilities owned or controlled by the reporting entity in the United States;

(ii) transfers of project reductions to and from any other entity;

(iii) project reductions and transfers of project reductions outside the United States;

(iv) other indirect emissions that are not required to be reported undersubsection (d); and

(v) product use phase emissions; and

(B) with respect to greenhouse gas emissions reductions activities carried out since 1990 and verified according to rules implementing subparagraphs (6) and (8) of this subsection and submitted to the Designated Agency or Agencies before the date that is three years after the date of enactment of this title, those reductions that have been reported or submitted by an entity under section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)) or under other Federal or State voluntary greenhouse gas reduction programs.

(5) TYPES OF ACTIVITIES.—Under paragraph (4), an entity may report projects that reduce greenhouse gas emissions or sequester a greenhouse gas, including—

(A) fuel switching;
(B) energy efficiency improvements;
(C) use of renewable energy;
(D) use of combined heat and power systems;
(E) management of cropland, grassland, and grazing land;
(F) forestry activities that increase forest carbon stocks or reduce forest carbon missions;
(G) carbon capture and storage;
(H) methane recovery; and
(I) greenhouse gas offset investments.

(6) PROVISION OF VERIFICATION INFORMATION BY REPORTING ENTITIES.—Each reporting entity shall provide information sufficient for the Designated Agency or Agencies to verify, in accordance with measurement and verification criteria developed under Section 1106, that the greenhouse gas report of the reporting entity—

(A) has been accurately reported; and

(B) in the case of each additional voluntary report, represents—

(i) actual reductions in direct greenhouse gas emissions relative to historic emission levels and net of any increases in direct emissions and indirect emissions described in clauses (iv) and (v) of paragraph (1)(B), or

(ii) actual increases in net sequestration.

(7) INDEPENDENT THIRD-PARTY VERIFICATION.—A reporting entity may—

(A) obtain independent third-party verification; and

(B) present the results of the third-party verification to the Designated Agency or Agencies for consideration by the Designated Agency or Agencies in carrying out paragraph (1).

(8) DATA QUALITY.—The rule under subsection (c) shall establish procedures and protocols needed to—

(A) prevent the reporting of some or all of the same greenhouse gas emissions or emission reductions by more than one reporting entity;

(B) provide for corrections to errors in data submitted to the database;

(C) provide for adjustment to data by reporting entities that have had a significant organizational change (including mergers, acquisitions, and divestiture), in order to maintain comparability among data in the database over time;

(D) provide for adjustments to reflect new technologies or methods for measuring or calculating greenhouse gas emissions; and

(E) account for changes in registration of ownership of emissions reductions resulting from a voluntary private transaction between reporting entities.

(9) AVAILABILITY OF DATA.—The Designated Agency or Agencies shall ensure that information in the database is published, accessible to the public, and made available in electronic format on the Internet, except in cases where the Designated Agency or Agencies determine that publishing or making available the information would disclose information vital to national security.

(10) DATA INFRASTRUCTURE.—The Designated Agency or Agencies shall ensure that the database established by this Act shall utilize and is integrated with existing Federal, regional, and state greenhouse gas data collection and reporting systems to the maximum extent possible and avoid duplication of such systems.

(11) ADDITIONAL ISSUES TO BE CONSIDERED.—In promulgating the rules for and implementing the Database, the Designated Agency or Agencies shall consider a broad range of issues involved in establishing an effective database, including the following:

(A) UNITS FOR REPORTING.—The appropriate units for reporting each greenhouse gas, and whether to require reporting of emission efficiency rates (including emissions per kilowatt-hour for electricity generators) in addition to mass emissions of greenhouse gases,

(B) INTERNATIONAL CONSISTENCY.—The greenhouse gas reduction and sequestration methods and standards applied in other countries, as applicable or relevant; and

(C) DATA SUFFICIENCY.—The extent to which available fossil fuels, greenhouse gas emissions, and greenhouse gas production and importation data are adequate to implement a comprehensive National Greenhouse Gas Database.

(e) ENFORCEMENT.—The Attorney General may, at the request of the Designated Agency or Agencies, bring a civil action in United States District Court against an entity that fails to comply with reporting requirements under this section, to impose a civil penalty of not more than $25,000 for each day that the failure to comply continues.

(f) ANNUAL REPORT.—The Designated Agency or Agencies shall publish an annual report that—

(1) describes the total greenhouse gas emissions and emission reductions reported to the database;

(2) provides entity-by-entity and sector-by-sector analyses of the emissions and emission reductions reported; and

(3) describes the atmospheric concentrations of greenhouse gases and tracks such information over time.

SEC. 1105. REPORT ON STATUTORY CHANGES AND HARMONIZATION.

Not later than 3 years after the date of enactment of this title, the President shall submit to Congress a report identifying any changes needed to this title or to other provisions of law to improve the accuracy or operation of the Greenhouse Gas Database and related programs under this title.

SEC. 1106. MEASUREMENT AND VERIFICATION.

The Designated Agency or Agencies shall, not later than 1 year after the date of enactment of this title, design and develop comprehensive measurement and verification methods and standards to ensure a consistent and technically accurate record of greenhouse gas emissions, reductions, and atmospheric concentrations for use in the national greenhouse gas database. The Agency or Agencies shall periodically review and revise these methods and standards as necessary.

SEC. 1107. INDEPENDENT REVIEW.

(a) The General Accounting Office shall submit a report to Congress five years after the date of enactment of this title, and every three years thereafter, providing a review of the efficacy of the implementation and operation of the National Greenhouse Gas Database established in section 1104 and making recommendations for improvements to the programs created pursuant to this title and changes to the law that will achieve a consistent and technically accurate record of greenhouse gas emissions, reductions, and atmospheric concentrations and the other purposes of this title.

(b) The Designated Agency or Agencies shall enter into an agreement with the National Academy of Sciences to review the scientific methods, assumptions and standards used by the Agency or Agencies implementing this title, and to report to Congress not later than four years after the date of enactment of this title with recommendations for improving those methods and standards or related elements of the programs or structure of the reporting and registry system established by this title.

SEC. 1108. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated such sums as are necessary to carry out the activities and programs included in this title.

DIVISION E—ENHANCING RESEARCH, DEVELOPMENT, AND TRAINING

TITLE XII—ENERGY RESEARCH AND DEVELOPMENT PROGRAMS

SEC. 1201. SHORT TITLE.

This division may be cited as the ''Energy Science and Technology Enhancement Act of 2002''.

SEC. 1202. FINDINGS.

The Congress finds the following:

(1) A coherent national energy strategy requires an energy research and development program that supports basic energy research and provides mechanisms to develop, demonstrate, and deploy new energy technologies in partnership with industry.

(2) An aggressive national energy research, development, demonstration, and technology deployment program is an integral part of a national climate change strategy, because it can reduce—

(A) United States energy intensity by 1.9 percent per year from 1999 to 2020;

(B) United States energy consumption in 2020 by 8 quadrillion Btu from otherwise expected levels; and

(C) United States carbon dioxide emissions from expected levels by 166 million metric tons in carbon equivalent in 2020.

(3) An aggressive national energy research, development, demonstration, and technology deployment program can help maintain domestic United States production of energy, increase United States hydrocarbon reserves by 14 percent, and lower natural gas prices by 20 percent, compared to estimates for 2020.

(4) An aggressive national energy research, development, demonstration, and technology deployment program is needed if United States suppliers and manufacturers are to compete in future markets for advanced energy technologies.

SEC. 1203. DEFINITIONS.

In this title:

(1) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(2) DEPARTMENTAL MISSION.—The term ''departmental mission'' means any of the functions vested in the Secretary of Energy by the Department of Energy Organization Act (42 U.S.C. 7101 et seq.) or other law.

(3) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given that term in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a));

(4) NATIONAL LABORATORY.—The term ''National Laboratory'' means any of the following multi-purpose laboratories owned by the Department of Energy—

(A) Argonne National Laboratory;

(B) Brookhaven National Laboratory;

(C) Idaho National Engineering and Environmental Laboratory;

(D) Lawrence Berkeley National Laboratory;

(E) Lawrence Livermore National Laboratory;

(F) Los Alamos National Laboratory;

(G) National Energy Technology Laboratory;

(H) National Renewable Energy Laboratory;

(I) Oak Ridge National Laboratory;

(J) Pacific Northwest National Laboratory; or

(K) Sandia National Laboratory.

(5) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(6) TECHNOLOGY DEPLOYMENT.—The term ''technology deployment'' means activities to promote acceptance and utilization of technologies in commercial application, including activities undertaken pursuant to section 7 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5906) or section 6 of the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (42 U.S.C. 12007).

SEC. 1204. CONSTRUCTION WITH OTHER LAWS.

Except as otherwise provided in this title and title XIV, the Secretary shall carry out the research, development, demonstration, and technology deployment programs authorized by this title in accordance with the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), the Federal Nonnuclear Research and Development Act of 1974 (42 U.S.C. 5901 et seq.), the Energy Policy Act of 1992 (42 U.S.C. 13201 et seq.), or any other Act under which the Secretary is authorized to carry out such activities.

Subtitle A—Energy Efficiency

SEC. 1211. ENHANCED ENERGY EFFICIENCY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct balanced energy research, development, demonstration, and technology deployment programs to enhance energy efficiency in buildings, industry, power technologies, and transportation.

(b) PROGRAM GOALS.—

(1) ENERGY-EFFICIENT HOUSING.—The goal of the energy-efficient housing program shall be to develop, in partnership with industry, enabling technologies (including lighting technologies), designs, production methods, and supporting activities that will, by 2010—

(A) cut the energy use of new housing by 50 percent, and

(B) reduce energy use in existing homes by 30 percent.

(2) INDUSTRIAL ENERGY EFFICIENCY.—The goal of the industrial energy efficiency program shall be to develop, in partnership with industry, enabling technologies, designs, production methods, and supporting activities that will, by 2010, enable energy-intensive industries such as the following industries to reduce their energy intensity by at least 25 percent—

(A) the wood product manufacturing industry;

(B) the pulp and paper industry;

(C) the petroleum and coal products manufacturing industry;

(D) the mining industry;

(E) the chemical manufacturing industry;

(F) the glass and glass product manufacturing industry;

(G) the iron and steel mills and ferroalloy manufacturing industry;

(H) the primary aluminum production industry;

(I) the foundries industry; and

(J) U.S. agriculture.

(3) TRANSPORTATION ENERGY EFFICIENCY.—The goal of the transportation energy efficiency program shall be to develop, in partnership with industry, technologies that will enable the achievement—

(A) by 2010, passenger automobiles with a fuel economy of 80 miles per gallon;

(B) by 2010, light trucks (classes 1 and 2a) with a fuel economy of 60 miles per gallon;

(C) by 2010, medium trucks and buses (classes 2b through 6 and class 8 transit buses) with a fuel economy, in ton-miles per gallon, that is three times that of year 2000 equivalent vehicles;

(D) by 2010, heavy trucks (classes 7 and 8) with a fuel economy, in ton-miles per gallon, that is two times that of year 2000 equivalent vehicles; and

(E) by 2015, the production of fuel-cell powered passenger vehicles with a fuel economy of 110 miles per gallon.

(4) ENERGY EFFICIENT DISTRIBUTED GENERATION.—The goals of the energy efficient on-site generation program shall be to help remove environmental and regulatory barriers to on-site, or distributed, generation and combined heat and power by developing technologies by 2015 that achieve—

(A) electricity generating efficiencies greater than 40 percent for on-site generation technologies based upon natural gas, including fuel cells, microturbines, reciprocating engines and industrial gas turbines;

(B) combined heat and power total (electric and thermal) efficiencies of more than 85 percent;

(C) fuel flexibility to include hydrogen, biofuels and natural gas;

(D) near zero emissions of pollutants that form smog and acid rain;

(E) reduction of carbon dioxide emissions by at least 40 percent;

(F) packaged system integration at end user facilities providing complete services in heating, cooling, electricity and air quality; and

(G) increased reliability for the consumer and greater stability for the national electricity grid.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this subtitle—

(1) $700,000,000 for fiscal year 2003;

(2) $784,000,000 for fiscal year 2004;

(3) $878,000,000 for fiscal year 2005; and

(4) $983,000,000 for fiscal year 2006.

(d) LIMITATION ON USE OF FUNDS.—None of the funds authorized to be appropriated in subsection (c) may be used for the following programs of the Department—

(1) Weatherization Assistance Program;

(2) State Energy Program; or

(3) Federal Energy Management Program.

SEC. 1212. ENERGY EFFICIENCY SCIENCE INITIATIVE.

(a) ESTABLISHMENT AND AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1211(c), there are authorized to be appropriated not more than $50,000,000 in any fiscal year, for an Energy Efficiency Science Initiative to be managed by the Assistant Secretary in the Department with responsibility for energy conservation under section 203(a)(9) of the Department of Energy Organization Act (42 U.S.C. 7133(a)(9)), in consultation with the Director of the Office of Science, for grants to be competitively awarded and subject to peer review for research relating to energy efficiency.

(b) REPORT.—The Secretary of Energy shall submit to the Committee on Science and the Committee on Appropriations of the United States House of Representatives, and to the Committee on Energy and Natural Resources and the Committee on Appropriations of the United States Senate, an annual report on the activities of the Energy Efficiency Science Initiative, including a description of the process used to award the funds and an explanation of how the research relates to energy efficiency.

SEC. 1213. NEXT GENERATION LIGHTING INITIATIVE.

(a) ESTABLISHMENT.—There is established in the Department a Next Generation Lighting Initiative to research, develop, and conduct demonstration activities on advanced solid-state lighting technologies based on white light emitting diodes.

(b) OBJECTIVES.—

(1) IN GENERAL.—The objectives of the initiative shall be to develop, by 2011, advanced solid-state lighting technologies based on white light emitting diodes that, compared to incandescent and fluorescent lighting technologies, are—

(A) longer lasting;

(B) more energy-efficient; and

(C) cost-competitive.

(2) INORGANIC WHITE LIGHT EMITTING DIODE.—The objective of the initiative with respect to inorganic white light emitting diodes shall be to develop an inorganic white light emitting diode that has an efficiency of 160 lumens per watt and a 10-year lifetime.

(3) ORGANIC WHITE LIGHT EMITTING DIODE.—The objective of the initiative with respect to organic white light emitting diodes shall be to develop an organic white light emitting diode with an efficiency of 100 lumens per watt with a 5-year lifetime that—

(A) illuminates over a full color spectrum;

(B) covers large areas over flexible surfaces; and

(C) does not contain harmful pollutants typical of fluorescent lamps such as mercury.

(c) CONSORTIUM.—

(1) IN GENERAL.—The Secretary shall initiate and manage basic and manufacturing-related research on advanced solid-state lighting technologies based on white light emitting diodes for the initiative, in cooperation with the Next Generation Lighting Initiative Consortium.

(2) COMPOSITION.—The consortium shall be composed of firms, national laboratories, and other entities so that the consortium is representative of the United States solid state lighting research, development, and manufacturing expertise as a whole.

(3) FUNDING.—The consortium shall be funded by—

(A) participation fees; and

(B) grants provided under subsection (e)(1).

(4) ELIGIBILITY.—To be eligible to receive a grant under subsection (e)(1), the consortium shall—

(A) enter into a consortium participation agreement that—

(i) is agreed to by all participants; and

(ii) describes the responsibilities of participants, participation fees, and the scope of research activities; and

(B) develop an annual program plan.

(5) INTELLECTUAL PROPERTY.—Participants in the consortium shall have royalty-free nonexclusive rights to use intellectual property derived from consortium research conducted under subsection (e)(1).

(d) PLANNING BOARD.—

(1) IN GENERAL.—Not later than 90 days after the establishment of the consortium, the Secretary shall establish and appoint the members of a planning board, to be known as the ''Next Generation Lighting Initiative Planning Board'', to assist the Secretary in carrying out this section.

(2) COMPOSITION.—The planning board shall be composed of—

(A) 4 members from universities, national laboratories, and other individuals with expertise in advanced solid-state lighting and technologies based on white light emitting diodes; and

(B) 3 members from a list of not less than 6 nominees from industry submitted by the consortium.

(3) STUDY.—

(A) IN GENERAL.—Not later than 90 days after the date on which the Secretary appoints members to the planning board, the planning board shall complete a study on strategies for the development and implementation of advanced solid-state lighting technologies based on white light emitting diodes.

(B) REQUIREMENTS.—The study shall develop a comprehensive strategy to implement, through the initiative, the use of white light emitting diodes to increase energy efficiency and enhance United States competitiveness.

(C) IMPLEMENTATION.—As soon as practicable after the study is submitted to the Secretary, the Secretary shall implement the initiative in accordance with the recommendations of the planning board.

(4) TERMINATION.—The planning board shall terminate upon completion of the study under paragraph (3).

(e) GRANTS.—

(1) FUNDAMENTAL RESEARCH.—The Secretary, through the consortium, shall make grants to conduct basic and manufacturing-related research related to advanced solid-state lighting technologies based on white light emitting diode technologies.

(2) TECHNOLOGY DEVELOPMENT AND DEMONSTRATION.—The Secretary shall enter into grants, contracts, and cooperative agreements to conduct or promote technology research, development, or demonstration activities. In providing funding under this paragraph, the Secretary shall give preference to participants in the consortium.

(3) CONTINUING ASSESSMENT.—The consortium, in collaboration with the Secretary, shall formulate annual operating and performance objectives, develop technology roadmaps, and recommend research and development priorities for the initiative. The Secretary may also establish or utilize advisory committees, or enter into appropriate arrangements with the National Academy of Sciences, to conduct periodic reviews of the initiative. The Secretary shall consider the results of such assessment and review activities in making funding decisions under paragraphs (1) and (2) of this subsection.

(4) TECHNICAL ASSISTANCE.—The National Laboratories shall cooperate with and provide technical assistance to persons carrying out projects under the initiative.

(5) AUDITS.—

(A) IN GENERAL.—The Secretary shall retain an independent, commercial auditor to determine the extent to which funds made available under this section have been expended in a manner that is consistent with the objectives under subsection (b) and, in the case of funds made available to the consortium, the annual program plan of the consortium under subsection (c)(4)(B).

(B) REPORTS.—The auditor shall submit to Congress, the Secretary, and the Comptroller General of the United States an annual report containing the results of the audit.

(6) APPLICABLE LAW.—Grants, contracts, and cooperative agreements under this section shall not be subject to the Federal Acquisition Regulation.

(f) PROTECTION OF INFORMATION.—Information obtained by the Federal Government on a confidential basis under this section shall be considered to constitute trade secrets and commercial or financial information obtained from a person and privileged or confidential under section 552(b)(4) of title 5, United States Code.

(g) AUTHORIZATION OF APPROPRIATIONS.—In addition to amounts authorized under section 1211(c), there are authorized to be appropriated for activities under this section $50,000,000 for each of fiscal years 2003 through 2011.

(h) DEFINITIONS.—In this section:

(1) ADVANCED SOLID-STATE LIGHTING.—The term ''advanced solid-state lighting'' means a semiconducting device package and delivery system that produces white light using externally applied voltage.

(2) CONSORTIUM.—The term ''consortium'' means the Next Generation Lighting Initiative Consortium under subsection (c).

(3) INITIATIVE.—The term ''initiative'' means the Next Generation Lighting Initiative established under subsection (a).

(4) INORGANIC WHITE LIGHT EMITTING DIODE.—The term ''inorganic white light emitting diode'' means an inorganic semiconducting package that produces white light using externally applied voltage.

(5) ORGANIC WHITE LIGHT EMITTING DIODE.—The term ''organic white light emitting diode'' means an organic semiconducting compound that produces white light using externally applied voltage.

(6) WHITE LIGHT EMITTING DIODE.—The term ''white light emitting diode'' means—

(A) an inorganic white light emitting diode; or

(B) an organic white light emitting diode.

SEC. 1214. RAILROAD EFFICIENCY.

(a) ESTABLISHMENT.—The Secretary shall, in cooperation with the Secretaries of Transportation and Defense, and the Administrator of the Environmental Protection Agency, establish a public-private research partnership involving the federal government, railroad carriers, locomotive manufacturers, and the Association of American Railroads. The goal of the initiative shall include developing and demonstrating locomotive technologies that increase fuel economy, reduce emissions, improve safety, and lower costs.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out the requirements of this section $60,000,000 for fiscal year 2003 and $70,000,000 for fiscal year 2004.

Subtitle B—Renewable Energy

SEC. 1221. ENHANCED RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct balanced energy research, development, demonstration, and technology deployment programs to enhance the use of renewable energy.

(b) PROGRAM GOALS.—

(1) WIND POWER.—The goals of the wind power program shall be to develop, in partnership with industry, a variety of advanced wind turbine designs and manufacturing technologies that are cost-competitive with fossil-fuel generated electricity, with a focus on developing advanced low wind speed technologies that, by 2007, will enable the expanding utilization of widespread class 3 and 4 winds.

(2) PHOTOVOLTAICS.—The goal of the photovoltaic program shall be to develop, in partnership with industry, total photovoltaic systems with installed costs of $4000 per peak kilowatt by 2005 and $2000 per peak kilowatt by 2015.

(3) SOLAR THERMAL ELECTRIC SYSTEMS.—The goal of the solar thermal electric systems program shall be to develop, in partnership with industry, solar power technologies (including baseload solar power) that are competitive with fossil-fuel generated electricity by 2015, by combining high-efficiency and high-temperature receivers with advanced thermal storage and power cycles.

(4) BIOMASS-BASED POWER SYSTEMS.—The goal of the biomass program shall be to develop, in partnership with industry, integrated power-generating systems, advanced conversion, and feedstock technologies capable of producing electric power that is cost-competitive with fossil-fuel generated electricity by 2010, together with the production of fuels, chemicals, and other products under paragraph (6).

(5) GEOTHERMAL ENERGY.—The goal of the geothermal program shall be to develop, in partnership with industry, technologies and processes based on advanced hydrothermal systems and advanced heat and power systems, including geothermal heat pump technology, with a specific focus on—

(A) improving exploration and characterization technology to increase the probability of drilling successful wells from 20 percent to 40 percent by 2006;

(B) reducing the cost of drilling by 2008 to an average cost of $150 per foot; and

(C) developing enhanced geothermal systems technology with the potential to double the useable geothermal resource base.

(6) BIOFUELS.—The goal of the biofuels program shall be to develop, in partnership with industry, advanced biochemical and thermochemical conversion technologies capable of making liquid and gaseous fuels from cellulosic feedstocks, that are price-competitive with gasoline or diesel, in either internal combustion engines or fuel cell vehicles, by 2010.

(7) HYDROGEN-BASED ENERGY SYSTEMS.—The goals of the hydrogen program shall be to support research and development on technologies for production, storage, and use of hydrogen, including fuel cells and, specifically, fuel-cell vehicle development activities under section 1211.

(8) HYDROPOWER.—The goal of the hydropower program shall be to develop, in partnership with industry, a new generation of turbine technologies that are less damaging to fish and aquatic ecosystems.

(9) ELECTRIC ENERGY SYSTEMS AND STORAGE.—The goals of the electric energy and storage program shall be to develop, in partnership with industry—

(A) generators and transmission, distribution, and storage systems that combine high capacity with high efficiency;

(B) technologies to interconnect distributed energy resources with electric power systems, comply with any national interconnection standards, have a minimum 10-year useful life;

(C) advanced technologies to increase the average efficiency of electric transmission facilities in rural and remote areas, giving priority for demonstrations to advanced transmission technologies that are being or have been field tested;

(D) the use of new transmission technologies, including composite conductor materials, advanced protection devices, controllers, and other cost-effective methods and technologies;

(E) the use of superconducting materials in power delivery equipment such as transmission and distribution cables, transformers, and generators;

(F) energy management technologies for enterprises with aggregated loads and distributed generation, such as power parks;

(G) economic and system models to measure the costs and benefits of improved system performance;

(H) hybrid distributed energy systems to optimize two or more distributed or on-site generation technologies; and

(I) real-time transmission and distribution system control technologies that provide for continual exchange of information between generation, transmission, distribution, and end-user facilities.

(c) SPECIAL PROJECTS.—In carrying out this section, the Secretary shall demonstrate—

(1) the use of advanced wind power technology, biomass, geothermal energy systems, and other renewable energy technologies to assist in delivering electricity to rural and remote locations; and

(2) the combined use of wind power and coal gasification technologies.

(d) FINANCIAL ASSISTANCE TO RURAL AREAS.—In carrying out special projects under subsection (c), the Secretary may provide financial assistance to rural electric cooperatives and other rural entities.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this subtitle—

(1) $500,000,000 for fiscal year 2003;

(2) $595,000,000 for fiscal year 2004;

(3) $683,000,000 for fiscal year 2005; and

(4) $733,000,000 for fiscal year 2006.

SEC. 1222. BIOENERGY PROGRAMS.

(a) PROGRAM DIRECTION.—The Secretary shall carry out research, development, demonstration, and technology development activities related to bioenergy, including programs under paragraphs (4) and (6) of section 1221(b).

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) BIOPOWER ENERGY SYSTEMS.—From amounts authorized under section 1221(e), there are authorized to be appropriated to the Secretary for biopower energy systems—

(A) $60,300,000 for fiscal year 2003;

(B) $69,300,000 for fiscal year 2004;

(C) $79,600,000 for fiscal year 2005; and

(D) $86,250,000 for fiscal year 2006.

(2) BIOFUELS ENERGY SYSTEMS.—From amounts authorized under section 1221(e), there are authorized to be appropriated to the Secretary for biofuels energy systems—

(A) $57,500,000 for fiscal year 2003;

(B) $66,125,000 for fiscal year 2004;

(C) $76,000,000 for fiscal year 2005; and

(D) $81,400,000 for fiscal year 2006.

(3) INTEGRATED BIOENERGY RESEARCH AND DEVELOPMENT.—The Secretary may use funds authorized under paragraph (1) or (2) for programs, projects, or activities that integrate applications for both biopower and biofuels, including cross-cutting research and development in feedstocks and economic analysis.

SEC. 1223. HYDROGEN RESEARCH AND DEVELOPMENT.

(a) SHORT TITLE.—This section may be cited as the ''Hydrogen Future Act of 2002''.

(b) PURPOSES.—Section 102(b) of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12401(b)) is amended by striking paragraphs (2) and (3) and inserting the following:

''(2) to direct the Secretary to develop a program of technology assessment, information transfer, and education in which Federal agencies, members of the transportation, energy, and other industries, and other entities may participate;

''(3) to develop methods of hydrogen production that minimize production of greenhouse gases, including developing—

''(A) efficient production from non-renewable resources; and

''(B) cost-effective production from renewable resources such as biomass, geothermal, wind, and solar energy; and

''(4) to foster the use of hydrogen as a major energy source, including developing the use of hydrogen in—

''(A) isolated villages, islands, and communities in which other energy sources are not available or are very expensive; and

''(B) foreign economic development, to avoid environmental damage from increased fossil fuel use.''.

(c) REPORT TO CONGRESS.—Section 103 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12402) is amended—

(1) in subsection (a), by striking ''January 1, 1999,'' and inserting ''1 year after the date of enactment of the Hydrogen Future Act of 2002, and biennially thereafter,'';

(2) in subsection (b), by striking paragraphs (1) and (2) and inserting the following:

''(1) an analysis of hydrogen-related activities throughout the United States Government to identify productive areas for increased intragovernmental collaboration;

''(2) recommendations of the Hydrogen Technical Advisory Panel established by section 108 for any improvements in the program that are needed, including recommendations for additional legislation; and

''(3) to the extent practicable, an analysis of State and local hydrogen-related activities.''; and

(3) by adding at the end the following:

''(c) COORDINATION PLAN.—The report under subsection (a) shall be based on a comprehensive coordination plan for hydrogen energy prepared by the Secretary in consultation with other Federal agencies.''.

(d) HYDROGEN RESEARCH AND DEVELOPMENT.—Section 104 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12403) is amended—

(1) in subsection (b)(1), by striking ''marketplace;'' and inserting ''marketplace, including foreign markets, particularly where an energy infrastructure is not well developed;'';

(2) in subsection (e), by striking ''this chapter'' and inserting ''this Act'';

(3) by striking subsection (g) and inserting the following:

''(g) COST SHARING.—

''(1) INABILITY TO FUND ENTIRE COST.—The Secretary shall not consider a proposal submitted by a person from industry unless the proposal contains a certification that—

''(A) reasonable efforts to obtain non-Federal funding in the amount necessary to pay 100 percent of the cost of the project have been made; and

''(B) non-Federal funding in that amount could not reasonably be obtained.

''(2) NON-FEDERAL SHARE.—

''(A) IN GENERAL.—The Secretary shall require a commitment from non-Federal sources of at least 25 percent of the cost of the project.

''(B) REDUCTION OR ELIMINATION.—The Secretary may reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for technical analyses, economic analyses, outreach activities, and educational programs, if the Secretary determines that reduction or elimination is necessary to achieve the objectives of this Act.''; and

(4) in subsection (i), by striking ''this chapter'' and inserting ''this Act''.

(e) DEMONSTRATIONS.—Section 105 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12404) is amended by striking subsection (c) and inserting the following:

''(c) NON-FEDERAL SHARE.—

''(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs directly relating to a demonstration project under this section.

''(2) REDUCTION.—The Secretary may reduce the non-Federal requirement under paragraph (1) if the Secretary determines that the reduction is appropriate considering the technological risks involved in the project and is necessary to meet the objectives of this Act.''.

(f) TECHNOLOGY TRANSFER.—Section 106 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12405) is amended—

(1) in subsection (a)—

(A) in the first sentence—

(i) by striking ''The Secretary shall conduct a program designed to accelerate wider application'' and inserting the following:

''(1) IN GENERAL.—The Secretary shall conduct a program designed to—

''(A) accelerate wider application''; and

(ii) by striking ''private sector'' and inserting ''private sector; and

''(B) accelerate wider application of hydrogen technologies in foreign countries to increase the global market for the technologies and foster global economic development without harmful environmental effects.''; and

(B) in the second sentence, by striking ''The Secretary'' and inserting the following:

''(2) ADVICE AND ASSISTANCE.—The Secretary''; and

(2) in subsection (b)—

(A) in paragraph (2), by redesignating subparagraphs (A) through (D) as clauses (i) through (iv), respectively, and indenting appropriately;

(B) by redesignating paragraphs (1) and (2) as subparagraphs (A) and (B), respectively, and indenting appropriately;

(C) by striking ''The Secretary, in'' and inserting the following:

''(1) IN GENERAL.—The Secretary, in'';

(D) by striking ''The information'' and inserting the following:

''(2) ACTIVITIES.—The information''; and

(E) in paragraph (1) (as designated by subparagraph (C))—

(i) in subparagraph (A) (as redesignated by subparagraph (B)), by striking ''an inventory'' and inserting ''an update of the inventory''; and

(ii) in subparagraph (B) (as redesignated by subparagraph (B)), by striking ''develop'' and all that follows through ''to improve'' and inserting ''develop with the National Aeronautics and Space Administration, the Department of Energy, other Federal agencies as appropriate, and industry, an information exchange program to improve''.

(g) TECHNICAL PANEL REVIEW.—

(1) IN GENERAL.—Section 108 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12407) is amended—

(A) in subsection (b)—

(i) by striking ''(b) MEMBERSHIP.—The technical panel shall be appointed'' and inserting the following:

''(b) MEMBERSHIP.—

''(1) IN GENERAL.—The technical panel shall be comprised of not fewer than 9 nor more than 15 members appointed'';

(ii) by striking the second sentence and inserting the following:

''(2) TERMS.—

''(A) IN GENERAL.—The term of a member of the technical panel shall be not more than 3 years.

''(B) STAGGERED TERMS.—The Secretary may appoint members of the technical panel in a manner that allows the terms of the members serving at any time to expire at spaced intervals so as to ensure continuity in the functioning of the technical panel.

''(C) REAPPOINTMENT.—A member of the technical panel whose term expires may be reappointed.''; and

(iii) by striking ''The technical panel shall have a chairman,'' and inserting the following:

''(3) CHAIRPERSON.—The technical panel shall have a chairperson,''; and

(B) in subsection (d)—

(i) in the matter preceding paragraph (1), by striking ''the following items'';

(ii) in paragraph (1), by striking ''and'' at the end;

(iii) in paragraph (2), by striking the period at the end and inserting ''; and''; and

(iv) by adding at the end the following:

''(3) the plan developed by the interagency task force under section 202(b) of the Hydrogen Future Act of 1996.''.

(2) NEW APPOINTMENTS.—Not later than 180 days after the date of enactment of this Act, the Secretary—

(A) shall review the membership composition of the Hydrogen Technical Advisory Panel; and

(B) may appoint new members consistent with the amendments made by subsection (a).

(h) AUTHORIZATION OF APPROPRIATIONS.—Section 109 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12408) is amended—

(1) in paragraph (8), by striking ''and'';

(2) in paragraph (9), by striking the period and inserting a semicolon; and

(3) by adding at the end the following:

''(10) $65,000,000 for fiscal year 2003;

''(11) $70,000,000 for fiscal year 2004;

''(12) $75,000,000 for fiscal year 2005; and

''(13) $80,000,000 for fiscal year 2006.''.

(i) FUEL CELLS.—

(1) INTEGRATION OF FUEL CELLS WITH HYDROGEN PRODUCTION SYSTEMS.—Section 201 of the Hydrogen Future Act of 1996 is amended—

(A) in subsection (a)—

(i) by striking ''(a) Not later than 180 days after the date of enactment of this section, and subject'' and inserting ''(a) IN GENERAL.—Subject''; and

(B) by striking ''with—'' and all that follows and inserting ''into Federal, State, and local government facilities for stationary and transportation applications.'';

(2) in subsection (b), by striking ''gas is'' and inserting ''basis'';

(3) in subsection (c)(2), by striking ''systems described in subsections (a)(1) and (a)(2)'' and inserting ''projects proposed''; and

(4) by striking subsection (d) and inserting the following:

''(d) NON-FEDERAL SHARE.—

''(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs directly relating to a demonstration project under this section.

''(2) REDUCTION.—The Secretary may reduce the non-Federal requirement under paragraph (1) if the Secretary determines that the reduction is appropriate considering the technological risks involved in the project and is necessary to meet the objectives of this Act.''.

(2) COOPERATIVE AND COST-SHARING AGREEMENTS; INTEGRATION OF TECHNICAL INFORMATION.—Title II of the Hydrogen Future Act of 1996 (42 U.S.C. 12403 note; Public Law 104–271) is amended by striking section 202 and inserting the following:

''SEC. 202. INTERAGENCY TASK FORCE.

''(a) ESTABLISHMENT.—Not later than 120 days after the date of enactment of this section, the Secretary shall establish an interagency task force led by a Deputy Assistant Secretary of the Department of Energy and comprised of representatives of—

''(1) the Office of Science and Technology Policy;

''(2) the Department of Transportation;

''(3) the Department of Defense;

''(4) the Department of Commerce (including the National Institute for Standards and Technology);

''(5) the Environmental Protection Agency;

''(6) the National Aeronautics and Space Administration; and

''(7) other agencies as appropriate.

''(b) DUTIES.—

''(1) IN GENERAL.—The task force shall develop a plan for carrying out this title.

''(2) FOCUS OF PLAN.—The plan shall focus on development and demonstration of integrated systems and components for—

''(A) hydrogen production, storage, and use in Federal, State, and local government buildings and vehicles;

''(B) hydrogen-based infrastructure for buses and other fleet transportation systems that include zero-emission vehicles; and

''(C) hydrogen-based distributed power generation, including the generation of combined heat, power, and hydrogen.

''SEC. 203. COOPERATIVE AND COST-SHARING AGREEMENTS.

''The Secretary shall enter into cooperative and cost-sharing agreements with Federal, State, and local agencies for participation by the agencies in demonstrations at facilities administered by the agencies, with the aim of integrating high efficiency hydrogen systems using fuel cells into the facilities to provide immediate benefits and promote a smooth transition to hydrogen as an energy source.

''SEC. 204. INTEGRATION AND DISSEMINATION OF TECHNICAL INFORMATION.

''The Secretary shall—

''(1) integrate all the technical information that becomes available as a result of development and demonstration projects under this title;

''(2) make the information available to all Federal and State agencies for dissemination to all interested persons; and

''(3) foster the exchange of generic, nonproprietary information and technology developed under this title among industry, academia, and Federal, State, and local governments, to help the United States economy attain the economic benefits of the information and technology.

''SEC. 205. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated, for activities under this title—

''(1) $25,000,000 for fiscal year 2003;

''(2) $30,000,000 for fiscal year 2004;

''(3) $35,000,000 for fiscal year 2005; and

''(4) $40,000,000 for fiscal year 2006.''.

Subtitle C—Fossil Energy

SEC. 1231. ENHANCED FOSSIL ENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct a balanced energy research, development, demonstration, and technology deployment program to enhance fossil energy.

(b) PROGRAM GOALS.—

(1) CORE FOSSIL RESEARCH AND DEVELOPMENT.—The goals of the core fossil research and development program shall be to reduce emissions from fossil fuel use by developing technologies, including precombustion technologies, by 2015 with the capability of realizing—

(A) electricity generating efficiencies of 60 percent for coal and 75 percent for natural gas;

(B) combined heat and power thermal efficiencies of more than 85 percent;

(C) fuels utilization efficiency of 75 percent for the production of liquid transportation fuels from coal;

(D) near zero emissions of mercury and of emissions that form fine particles, smog, and acid rain;

(E) reduction of carbon dioxide emissions by at least 40 percent through efficiency improvements and 100 percent with sequestration; and

(F) improved reliability, efficiency, reductions of air pollutant emissions, or reductions in solid waste disposal requirements.

(2) OFFSHORE OIL AND NATURAL GAS RESOURCES.—The goal of the offshore oil and natural gas resources program shall be to develop technologies to—

(A) extract methane hydrates in coastal waters of the United States, and

(B) develop natural gas and oil reserves in the ultra-deepwater of the Central and Western Gulf of Mexico.

(3) ONSHORE OIL AND NATURAL GAS RESOURCES.—The goal of the onshore oil and natural gas resources program shall be to advance the science and technology available to domestic onshore petroleum producers, particularly independent operators, through—

(A) advances in technology for exploration and production of domestic petroleum resources, particularly those not accessible with current technology;

(B) improvement in the ability to extract hydrocarbons from known reservoirs and classes of reservoirs; and

(C) development of technologies and practices that reduce the threat to the environment from petroleum exploration and production and decrease the cost of effective environmental compliance.

(4) TRANSPORTATION FUELS.—The goals of the transportation fuels program shall be to increase the price elasticity of oil supply and demand by focusing research on—

(A) reducing the cost of producing transportation fuels from coal and natural gas; and

(B) indirect liquefaction of coal and biomass.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this section—

(A) $485,000,000 for fiscal year 2003;

(B) $508,000,000 for fiscal year 2004;

(C) $532,000,000 for fiscal year 2005; and

(D) $558,000,000 for fiscal year 2006.

(2) LIMITS ON USE OF FUNDS.—

(A) None of the funds authorized in paragraph (1) may be used for—

(i) fossil energy environmental restoration;

(ii) import/export authorization;

(iii) program direction; or

(iv) general plant projects.

(B) COAL-BASED PROJECTS.—The coal-based projects funded under this section shall be consistent with the goals in subsection (b). The program shall emphasize carbon capture and sequestration technologies and gasification technologies, including gasification combined cycle, gasification fuel cells, gasification co-production, hybrid gasification/combustion, or other technology with the potential to address the goals in subparagraphs (D) or (E) of subsection (b)(1).

SEC. 1232. POWER PLANT IMPROVEMENT INITIATIVE.

(a) PROGRAM DIRECTION.—The Secretary shall conduct a balanced energy research, development, demonstration, and technology deployment program to demonstrate commercial applications of advanced lignite and coal-based technologies applicable to new or existing power plants (including co-production plants) that advance the efficiency, environmental performance, and cost-competitiveness substantially beyond technologies that are in operation or have been demonstrated by the date of enactment of this subtitle.

(b) TECHNICAL MILESTONES.—

(1) IN GENERAL.—The Secretary shall set technical milestones specifying efficiency and emissions levels that projects shall be designed to achieve. The milestones shall become more restrictive over the life of the program.

(2) 2010 EFFICIENCY MILESTONES.—The milestones shall be designed to achieve by 2010 interim thermal efficiency of—

(A) 45 percent for coal of more than 9,000 Btu;

(B) 44 percent for coal of 7,000 to 9,000 Btu; and

(C) 42 percent for coal of less than 7,000 Btu.

(3) 2020 EFFICIENCY MILESTONES.—The milestones shall be designed to achieve by 2020 thermal efficiency of—

(A) 60 percent for coal of more than 9,000 Btu;

(B) 59 percent for coal of 7,000 to 9,000 Btu; and

(C) 57 percent for coal of less than 7,000 Btu.

(4) EMISSIONS MILESTONES.—The milestones shall include near zero emissions of mercury and greenhouse gases and of emissions that form fine particles, smog, and acid rain.

(5) REGIONAL AND QUALITY DIFFERENCES.—The Secretary may consider regional and quality differences in developing the efficiency milestones.

(c) PROJECT CRITERIA.—The demonstration activities proposed to be conducted at a new or existing coal-based electric generation unit having a nameplate rating of not less than 100 megawatts, excluding a co-production plant, shall include at least one of the following—

(1) a means of recycling or reusing a significant portion of coal combustion wastes produced by coal-based generating units, excluding practices that are commercially available by the date of enactment of this subtitle;

(2) a means of capture and sequestering emissions, including greenhouse gases, in a manner that is more effective and substantially below the cost of technologies that are in operation or that have been demonstrated by the date of enactment of this subtitle;

(3) a means of controlling sulfur dioxide and nitrogen oxide or mercury in a manner that improves environmental performance beyond technologies that are in operation or that have been demonstrated by the date of enactment of this subtitle—

(A) in the case of an existing unit, achieve an overall thermal design efficiency improvement compared to the efficiency of the unit as operated, of not less than—

(i) 7 percent for coal of more than 9,000 Btu;

(ii) 6 percent for coal of 7,000 to 9,000 Btu; or

(iii) 4 percent for coal of less than 7,000 Btu; or

(B) in the case of a new unit, achieve the efficiency milestones set for in subsection (b) compared to the efficiency of a typical unit as operated on the date of enactment of this subtitle, before any retrofit, repowering, replacement, or installation.

(d) STUDY.—The Secretary, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of the Interior, and interested entities (including coal producers, industries using coal, organizations to promote coal or advanced coal technologies, environmental organizations, and organizations representing workers), shall conduct an assessment that identifies performance criteria that would be necessary for coal-based technologies to meet, to enable future reliance on coal in an environmentally sustainable manner for electricity generation, use as a chemical feedstock, and use as a transportation fuel.

(e) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary for carrying out activities under this section $200,000,000 for each of fiscal years 2003 through 2011.

(2) LIMITATION ON FUNDING OF PROJECTS.—Eighty percent of the funding under this section shall be limited to—

(A) carbon capture and sequestration technologies;

(B) gasification technologies, including gasification combined cycle, gasification fuel cells, gasification co-production, or hybrid gasification/combustion; or

(C) or other technology either by itself or in conjunction with other technologies has the potential to achieve near zero emissions.

SEC. 1233. RESEARCH AND DEVELOPMENT FOR ADVANCED SAFE AND EFFICIENT COAL MINING TECHNOLOGIES.

(a) ESTABLISHMENT.—The Secretary of Energy shall establish a cooperative research partnership involving appropriate Federal agencies, coal producers, including associations, equipment manufacturers, universities with mining engineering departments, and other relevant entities to—

(1) develop mining research priorities identified by the Mining Industry of the Future Program and in the recommendations from relevant reports of the National Academy of Sciences on mining technologies;

(2) establish a process for conducting joint industry-government research and development; and

(3) expand mining research capabilities at institutions of higher education.

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out activities under this section, $12,000,000 in fiscal year 2003 and $15,000,000 in fiscal year 2004.

(2) LIMIT ON USE OF FUNDS.—Not less than 20 percent of any funds appropriated in a given fiscal year under this subsection shall be dedicated to research carried out at institutions of higher education.

SEC. 1234. ULTRA-DEEPWATER AND UNCONVENTIONAL RESOURCE EXPLORATION AND PRODUCTION TECHNOLOGIES.

(a) DEFINITIONS.—In this section:

(1) ADVISORY COMMITTEE.—The term ''Advisory Committee'' means the Ultra-Deepwater and Unconventional Resource Technology Advisory Committee established under subsection (c).

(2) AWARD.—The term ''award'' means a cooperative agreement, contract, award or other types of agreement as appropriate.

(3) DEEPWATER.—The term ''deepwater'' means a water depth that is greater than 200 but less than 1,500 meters.

(4) ELIGIBLE AWARD RECIPIENT.—The term ''eligible award recipient'' includes—

(A) a research institution;

(B) an institution of higher education;

(C) a corporation; and

(D) a managing consortium formed among entities described in subparagraphs (A) through (C).

(5) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given the term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

(6) MANAGING CONSORTIUM.—The term ''managing consortium'' means an entity that—

(A) exists as of the date of enactment of this section;

(B)(i) is an organization described in section 501(c)(3) of the Internal Revenue Code of 1986; and

(ii) is exempt from taxation under section 501(a) of that Code;

(C) is experienced in planning and managing programs in natural gas or other petroleum exploration and production research, development, and demonstration; and

(D) has demonstrated capabilities and experience in representing the views and priorities of industry, institutions of higher education and other research institutions in formulating comprehensive research and development plans and programs.

(7) PROGRAM.—The term ''program'' means the program of research, development, and demonstration established under subsection (b)(1)(A).

(8) ULTRA-DEEPWATER.—The term ''ultra-deepwater'' means a water depth that is equal to or greater than 1,500 meters.

(9) ULTRA-DEEPWATER ARCHITECTURE.—The term ''ultra-deepwater architecture'' means the integration of technologies to explore and produce natural gas or petroleum products located at ultra-deepwater depths.

(10) ULTRA-DEEPWATER RESOURCE.—The term ''ultra-deepwater resource'' means natural gas or any other petroleum resource (including methane hydrate) located in an ultra-deepwater area.

(11) UNCONVENTIONAL RESOURCE.—The term ''unconventional resource'' means natural gas or any other petroleum resource located in a formation on physically or economically inaccessible land currently available for lease for purposes of natural gas or other petroleum exploration or production.

(b) ULTRA-DEEPWATER AND UNCONVENTIONAL EXPLORATION AND PRODUCTION PROGRAM.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—The Secretary shall establish a program of research into, and development and demonstration of, ultra-deepwater resource and unconventional resource exploration and production technologies.

(B) LOCATION; IMPLEMENTATION.—The program under this subsection shall be carried out—

(i) in areas on the outer Continental Shelf that, as of the date of enactment of this section, are available for leasing; and

(ii) on unconventional resources.

(2) COMPONENTS.—The program shall include one or more programs for long-term research into—

(A) new deepwater ultra-deepwater resource and unconventional resource exploration and production technologies; or

(B) environmental mitigation technologies for production of ultra-deepwater resource and unconventional resource.

(c) ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—Not later than 30 days after the date of enactment of this section, the Secretary shall establish an advisory committee to be known as the ''Ultra-Deepwater and Unconventional Resource Technology Advisory Committee''.

(2) MEMBERSHIP.—

(A) COMPOSITION.—Subject to subparagraph (B), the advisory committee shall be composed of 7 members appointed by the Secretary that—

(i) have extensive operational knowledge of and experience in the natural gas and other petroleum exploration and production industry; and

(ii) are not Federal employees or employees of contractors to a federal agency.

(B) EXPERTISE.—Of the members of the advisory committee appointed under subparagraph (A)—

(i) at least 4 members shall have extensive knowledge of ultra-deepwater resource exploration and production technologies; and

(ii) at least 3 members shall have extensive knowledge of unconventional resource exploration and production technologies.

(3) DUTIES.—The advisory committee shall advise the Secretary in the implementation of this section.

(4) COMPENSATION.—A member of the advisory committee shall serve without compensation but shall receive travel expenses, including per diem in lieu of subsistence, in accordance with applicable provisions under subchapter I of chapter 57 of title 5, United States Code.

(d) AWARDS.—

(1) TYPES OF AWARDS.—

(A) ULTRA-DEEPWATER RESOURCES.—

(i) IN GENERAL.—The Secretary shall make awards for research into, and development and demonstration of, ultra-deepwater resource exploration and production technologies—

(I) to maximize the value of the ultra-deepwater resources of the United States;

(II) to increase the supply of ultra-deepwater resources by lowering the cost and improving the efficiency of exploration and production of such resources; and

(III) to improve safety and minimize negative environmental impacts of that exploration and production.

(ii) ULTRA-DEEPWATER ARCHITECTURE.—In furtherance of the purposes described in clause (i), the Secretary shall, where appropriate, solicit proposals from a managing consortium to develop and demonstrate next-generation architecture for ultra-deepwater resource production.

(B) UNCONVENTIONAL RESOURCES.—The Secretary shall make awards—

(i) to carry out research into, and development and demonstration of, technologies to maximize the value of unconventional resources; and

(ii) to develop technologies to simultaneously—

(I) increase the supply of unconventional resources by lowering the cost and improving the efficiency of exploration and production of unconventional resources; and

(II) improve safety and minimize negative environmental impacts of that exploration and production.

(2) CONDITIONS.—An award made under this subsection shall be subject to the following conditions:

(A) MULTIPLE ENTITIES.—If an award recipient is composed of more than one eligible organization, the recipient shall provide a signed contract, agreed to by all eligible organizations comprising the award recipient, that defines, in a manner that is consistent with all applicable law in effect as of the date of the contract, all rights to intellectual property for—

(i) technology in existence as of that date; and

(ii) future inventions conceived and developed using funds provided under the award.

(B) COMPONENTS OF APPLICATION.—An application for an award for a demonstration

project shall describe with specificity any intended commercial applications of the technology to be demonstrated.

(C) COST SHARING.—Non-Federal cost sharing shall be in accordance with section 1403.

(e) PLAN AND FUNDING.—

(1) IN GENERAL.—The Secretary, and where appropriate, a managing consortium under subsection (d)(1)(A)(ii), shall formulate annual operating and performance objectives, develop multi-year technology roadmaps, and establish research and development priorities for the funding of activities under this section which will serve as guidelines for making awards including cost-matching objectives.

(2) INDUSTRY INPUT.—In carrying out this program, the Secretary shall promote maximum industry input through the use of managing consortia or other organizations in planning and executing the research areas and conducting workshops or reviews to ensure that this program focuses on industry problems and needs.

(f) AUDITING.—

(1) IN GENERAL.—The Secretary shall retain an independent, commercial auditor to determine the extent to which funds authorized by this section, provided through a managing consortium, are expended in a manner consistent with the purposes of this section.

(2) REPORTS.—The auditor retained under paragraph (1) shall submit to the Secretary, and the Secretary shall transmit to the appropriate congressional committees, an annual report that describes—

(A) the findings of the auditor under paragraph (1); and

(B) a plan under which the Secretary may remedy any deficiencies identified by the auditor.

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

(h) TERMINATION OF AUTHORITY.—The authority provided by this section shall terminate on September 30, 2009.

(i) SAVINGS PROVISION.—Nothing in this section is intended to displace, duplicate or diminish any previously authorized research activities of the Department of Energy.

SEC. 1235. RESEARCH AND DEVELOPMENT FOR NEW NATURAL GAS TRANSPORTATION TECHNOLOGIES.

The Secretary of Energy shall conduct a comprehensive five-year program for research, development and demonstration to improve the reliability, efficiency, safety and integrity of the natural gas transportation and distribution infrastructure and for distributed energy resources (including microturbines, fuel cells, advanced engine-generators, gas turbines, reciprocating engines, hybrid power generation systems, and all ancillary equipment for dispatch, control and maintenance).

SEC. 1236. AUTHORIZATION OF APPROPRIATIONS FOR OFFICE OF ARCTIC ENERGY.

There are authorized to be appropriated to the Secretary for the Office of Arctic Energy under section 3197 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) such sums as may be necessary, but not to exceed $25,000,000 for each of fiscal years 2003 through 2011.

Subtitle D—Nuclear Energy

SEC. 1241. ENHANCED NUCLEAR ENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct an energy research, development, demonstration, and technology deployment program to enhance nuclear energy.

(b) PROGRAM GOALS.—The program shall—

(1) support research related to existing United States nuclear power reactors to extend their lifetimes and increase their reliability while optimizing their current operations for greater efficiencies;

(2) examine advanced proliferation-resistant and passively safe reactor designs, new reactor designs with higher efficiency, lower cost, and improved safety, proliferation-resistant and high burn-up nuclear fuels, minimization of generation of radioactive materials, improved nuclear waste management technologies, and improved instrumentation science;

(3) attract new students and faculty to the nuclear sciences and nuclear engineering and related fields (including health physics and nuclear and radiochemistry) through—

(A) university-based fundamental research for existing faculty and new junior faculty;

(B) support for the re-licensing of existing training reactors at universities in conjunction with industry; and

(C) completing the conversion of existing training reactors with proliferation resistant fuels that are low enriched and to adapt those reactors to new investigative uses;

(4) maintain a national capability and infrastructure to produce medical isotopes and ensure a well trained cadre of nuclear medicine specialists in partnership with industry;

(5) ensure that our nation has adequate capability to power future satellite and space missions; and

(6) maintain, where appropriate through a prioritization process, a balanced research infrastructure so that future research programs can use these facilities.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) CORE NUCLEAR RESEARCH PROGRAMS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under subsection (b)(1) through (3)—

(A) $100,000,000 for fiscal year 2003;

(B) $110,000,000 for fiscal year 2004;

(C) $120,000,000 for fiscal year 2005; and

(D) $130,000,000 for fiscal year 2006.

(2) SUPPORTING NUCLEAR ACTIVITIES.—There are authorized to be appropriated to the Secretary for carrying out activities under subsection (b)(4) through (6), as well as nuclear facilities management and program direction—

(A) $200,000,000 for fiscal year 2003;

(B) $202,000,000 for fiscal year 2004;

(C) $207,000,000 for fiscal year 2005; and

(D) $212,000,000 for fiscal year 2006.

SEC. 1242. UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.

(a) ESTABLISHMENT.—The Secretary shall support a program to maintain the nation's human resource investment and infrastructure in the nuclear sciences and engineering and related fields (including health physics and nuclear and radiochemistry), consistent with departmental missions related to civilian nuclear research and development.

(b) DUTIES.—In carrying out the program under this section, the Secretary shall—

(1) develop a graduate and undergraduate fellowship program to attract new and talented students;

(2) assist universities in recruiting and retaining new faculty in the nuclear sciences and engineering through a Junior Faculty Research Initiation Grant Program;

(3) support fundamental nuclear sciences and engineering research through the Nuclear Engineering Education Research Program;

(4) encourage collaborative nuclear research between industry, national laboratories and universities through the Nuclear Energy Research Initiative; and

(5) support communication and outreach related to nuclear science and engineering.

(c) MAINTAINING UNIVERSITY RESEARCH AND TRAINING REACTORS AND ASSOCIATED INFRASTRUCTURE.—Activities under this section may include:

(1) Converting research reactors to low-enrichment fuels, upgrading operational instrumentation, and sharing of reactors among universities.

(2) Providing technical assistance, in collaboration with the U.S. nuclear industry, in re-licensing and upgrading training reactors as part of a student training program.

(3) Providing funding for reactor improvements as part of a focused effort that emphasizes research, training, and education.

(d) UNIVERSITY-NATIONAL LABORATORY INTERACTIONS.—The Secretary shall develop—

(1) a sabbatical fellowship program for university professors to spend extended periods of time at National Laboratories in the areas of nuclear science and technology; and

(2) a visiting scientist program in which National Laboratory staff can spend time in academic nuclear science and engineering departments. The Secretary may provide for fellowships for students to spend time at National Laboratories in the area of nuclear science with a member of the Laboratory staff acting as a mentor.

(e) OPERATING AND MAINTENANCE COSTS.—Funding for a research project provided under this section may be used to offset a portion of the operating and maintenance costs of a university research reactor used in the research project, on a cost-shared basis with the university.

(f) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c)(1), the following amounts are authorized for activities under this section—

(1) $33,000,000 for fiscal year 2003;

(2) $37,900,000 for fiscal year 2004;

(3) $43,600,000 for fiscal year 2005; and

(4) $50,100,000 for fiscal year 2006.

SEC. 1243. NUCLEAR ENERGY RESEARCH INITIATIVE.

(a) ESTABLISHMENT.—The Secretary shall support a Nuclear Energy Research Initiative for grants for research relating to nuclear energy.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for each fiscal year.

SEC. 1244. NUCLEAR ENERGY PLANT OPTIMIZATION PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall support a Nuclear Energy Plant Optimization Program for grants to improve nuclear energy plant reliability, availability, and productivity. Notwithstanding section 1403, the program shall require industry cost-sharing of at least 50 percent and be subject to annual review by the Nuclear Energy Research Advisory Committee of the Department.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for each fiscal year.

SEC. 1245. NUCLEAR ENERGY TECHNOLOGY DEVELOPMENT PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall support a Nuclear Energy Technology Development Program to develop a technology roadmap to design and develop new nuclear energy powerplants in the United States.

(b) GENERATION IV REACTOR STUDY.—The Secretary shall, as part of the program under subsection (a), also conduct a study of Generation IV nuclear energy systems, including development of a technology roadmap and performance of research and development necessary to make an informed technical decision regarding the most promising candidates for commercial deployment. The

study shall examine advanced proliferation-resistant and passively safe reactor designs, new reactor designs with higher efficiency, lower cost and improved safety, proliferation-resistant and high burn-up fuels, minimization of generation of radioactive materials, improved nuclear waste management technologies, and improved instrumentation science. Not later than December 31, 2002, the Secretary shall submit to Congress a report describing the results of the study.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized to be appropriated under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for each fiscal year.

Subtitle E—Fundamental Energy Science

SEC. 1251. ENHANCED PROGRAMS IN FUNDAMENTAL ENERGY SCIENCE.

(a) PROGRAM DIRECTION.—The Secretary, acting through the Office of Science, shall—

(1) conduct a comprehensive program of fundamental research, including research on chemical sciences, physics, materials sciences, biological and environmental sciences, geosciences, engineering sciences, plasma sciences, mathematics, and advanced scientific computing;

(2) maintain, upgrade and expand the scientific user facilities maintained by the Office of Science and ensure that they are an integral part of the departmental mission for exploring the frontiers of fundamental science;

(3) maintain a leading-edge research capability in the energy-related aspects of nanoscience and nanotechnology, advanced scientific computing and genome research; and

(4) ensure that its fundamental science programs, where appropriate, help inform the applied research and development programs of the Department.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this subtitle—

(1) $3,785,000,000 for fiscal year 2003;

(2) $4,153,000,000 for fiscal year 2004;

(3) $4,586,000,000 for fiscal year 2005; and

(4) $5,000,000,000 for fiscal year 2006.

SEC. 1252. NANOSCALE SCIENCE AND ENGINEERING RESEARCH.

(a) ESTABLISHMENT.—The Secretary, acting through the Office of Science, shall support a program of research and development in nanoscience and nanoengineering consistent with the Department's statutory authorities related to research and development. The program shall include efforts to further the understanding of the chemistry, physics, materials science and engineering of phenomena on the scale of 1 to 100 nanometers.

(b) DUTIES OF THE OFFICE OF SCIENCE.—In carrying out the program under this section, the Office of Science shall—

(1) support both individual investigators and multidisciplinary teams of investigators;

(2) pursuant to subsection (c), develop, plan, construct, acquire, or operate special equipment or facilities for the use of investigators conducting research and development in nanoscience and nanoengineering;

(3) support technology transfer activities to benefit industry and other users of nanoscience and nanoengineering; and

(4) coordinate research and development activities with industry and other federal agencies.

(c) NANOSCIENCE AND NANOENGINEERING RESEARCH CENTERS AND MAJOR INSTRUMENTATION.—

(1) AUTHORIZATION.—From amounts authorized to be appropriated under section 1251(b), the amounts specified under subsection (d)(2) shall, subject to appropriations, be available for projects to develop, plan, construct, acquire, or operate special equipment, instrumentation, or facilities for investigators conducting research and development in nanoscience and nanoengineering.

(2) PROJECTS.—Projects under paragraph (1) may include the measurement of properties at the scale of 1 to 100 nanometers, manipulation at such scales, and the integration of technologies based on nanoscience or nanoengineering into bulk materials or other technologies.

(3) FACILITIES.—Facilities under paragraph (1) may include electron microcharacterization facilities, microlithography facilities, scanning probe facilities and related instrumentation science.

(4) COLLABORATION.—The Secretary shall encourage collaborations among universities, laboratories and industry at facilities under this subsection. At least one facility under this subsection shall have a specific mission of technology transfer to other institutions and to industry.

(d) AUTHORIZATION OF APPROPRIATIONS.—

(1) TOTAL AUTHORIZATION.—From amounts authorized to be appropriated under section 1251(b), the following amounts are authorized for activities under this section—

(A) $270,000,000 for fiscal year 2003;

(B) $290,000,000 for fiscal year 2004;

(C) $310,000,000 for fiscal year 2005; and

(D) $330,000,000 for fiscal year 2006.

(2) NANOSCIENCE AND NANOENGINEERING RESEARCH CENTERS AND MAJOR INSTRUMENTATION.—Of the amounts under paragraph (1), the following amounts are authorized to carry out subsection (c)—

(A) $135,000,000 for fiscal year 2003;

(B) $150,000,000 for fiscal year 2004;

(C) $120,000,000 for fiscal year 2005; and

(D) $100,000,000 for fiscal year 2006.

SEC. 1253. ADVANCED SCIENTIFIC COMPUTING FOR ENERGY MISSIONS.

(a) ESTABLISHMENT.—The Secretary, acting through the Office of Science, shall support a program to advance the Nation's computing capability across a diverse set of grand challenge computationally based science problems related to departmental missions.

(b) DUTIES OF THE OFFICE OF SCIENCE.—In carrying out the program under this section, the Office of Science shall—

(1) advance basic science through computation by developing software to solve grand challenge science problems on new generations of computing platforms,

(2) enhance the foundations for scientific computing by developing the basic mathematical and computing systems software needed to take full advantage of the computing capabilities of computers with peak speeds of 100 teraflops or more, some of which may be unique to the scientific problem of interest,

(3) enhance national collaboratory and networking capabilities by developing software to integrate geographically separated researchers into effective research teams and to facilitate access to and movement and analysis of large (petabyte) data sets, and

(4) maintain a robust scientific computing hardware infrastructure to ensure that the computing resources needed to address DOE missions are available; explore new computing approaches and technologies that promise to advance scientific computing.

(c) HIGH-PERFORMANCE COMPUTING ACT PROGRAM.—Section 203(a) of the High-Performance Computing Act of 1991 (15 U.S.C. 5523(a)) is amended—

(1) in paragraph (3), by striking ''and'';

(2) in paragraph (4), by striking the period and inserting ''; and''; and

(3) by adding after paragraph (4) the following: ''(5) conduct an integrated program of research, development, and provision of facilities to develop and deploy to scientific and technical users the high-performance computing and collaboration tools needed to fulfill the statutory missions of the Department of Energy in conducting basic and applied energy research.''.

(d) COORDINATION WITH THE DOE NATIONAL NUCLEAR SECURITY AGENCY ACCELERATED STRATEGIC COMPUTING INITIATIVE AND OTHER NATIONAL COMPUTING PROGRAMS.—The Secretary shall ensure that this program, to the extent feasible, is integrated and consistent with—

(1) the Accelerated Strategic Computing Initiative of the National Nuclear Security Agency; and

(2) other national efforts related to advanced scientific computing for science and engineering.

(e) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1251(b), the following amounts are authorized for activities under this section—

(1) $285,000,000 for fiscal year 2003;

(2) $300,000,000 for fiscal year 2004;

(3) $310,000,000 for fiscal year 2005; and

(4) $320,000,000 for fiscal year 2006.

SEC. 1254. FUSION ENERGY SCIENCES PROGRAM AND PLANNING.

(a) OVERALL PLAN FOR FUSION ENERGY SCIENCES PROGRAM.—

(1) IN GENERAL.—Not later than 6 months after the date of enactment of this subtitle, the Secretary, after consultation with the Fusion Energy Sciences Advisory Committee, shall develop and transmit to the Congress a plan to ensure a strong scientific base for the Fusion Energy Sciences Program within the Office of Science and to enable the experiments described in subsections (b) and (c).

(2) OBJECTIVES OF PLAN.—The plan under this subsection shall include as its objectives—

(A) to ensure that existing fusion research facilities and equipment are more fully utilized with appropriate measurements and control tools;

(B) to ensure a strengthened fusion science theory and computational base;

(C) to encourage and ensure that the selection of and funding for new magnetic and inertial fusion research facilities is based on scientific innovation and cost effectiveness;

(D) to improve the communication of scientific results and methods between the fusion science community and the wider scientific community;

(E) to ensure that adequate support is provided to optimize the design of the magnetic fusion burning plasma experiments referred to in subsections (b) and (c); and

(F) to ensure that inertial confinement fusion facilities are utilized to the extent practicable for the purpose of inertial fusion energy research and development.

(b) PLAN FOR UNITED STATES FUSION EXPERIMENT.—

(1) IN GENERAL.—The Secretary, after consultation with the Fusion Energy Sciences Advisory Committee, shall develop a plan for construction in the United States of a magnetic fusion burning plasma experiment for the purpose of accelerating scientific understanding of fusion plasmas. The Secretary shall request a review of the plan by the National Academy of Sciences and shall transmit the plan and the review to the Congress by July 1, 2004.

(2) REQUIREMENTS OF PLAN.—The plan described in paragraph (1) shall—

(A) address key burning plasma physics issues; and

(B) include specific information on the scientific capabilities of the proposed experiment, the relevance of these capabilities to the goal of practical fusion energy, and the

overall design of the experiment including its estimated cost and potential construction sites.

(c) PLAN FOR PARTICIPATION IN AN INTERNATIONAL EXPERIMENT.—In addition to the plan described in subsection (b), the Secretary, after consultation with the Fusion Energy Sciences Advisory Committee, may also develop a plan for United States participation in an international burning plasma experiment for the same purpose, whose construction is found by the Secretary to be highly likely and where United States participation is cost-effective relative to the cost and scientific benefits of a domestic experiment described in subsection (b). If the Secretary elects to develop a plan under this subsection, he shall include the information described in subsection (b)(2), and an estimate of the cost of United States participation in such an international experiment. The Secretary shall request a review by the National Academy of Sciences of a plan developed under this subsection, and shall transmit the plan and the review to the Congress no later than July 1, 2004.

(d) AUTHORIZATION FOR RESEARCH AND DEVELOPMENT.—The Secretary, through the Office of Science, may conduct any research and development necessary to fully develop the plans described in this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1251(b) for fiscal year 2003, $335,000,000 are authorized for fiscal year 2003 for activities under this section and for activities of the Fusion Energy Sciences Program.

Subtitle F—Energy, Safety, and Environmental Protection

SEC. 1261. CRITICAL ENERGY INFRASTRUCTURE PROTECTION RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary shall carry out a research, development, demonstration and technology deployment program, in partnership with industry, on critical energy infrastructure protection, consistent with the roles and missions outlined for the Secretary in Presidential Decision Directive 63, entitled ''Critical Infrastructure Protection''. The program shall have the following goals:

(1) Increase the understanding of physical and information system disruptions to the energy infrastructure that could result in cascading or widespread regional outages.

(2) Develop energy infrastructure assurance ''best practices'' through vulnerability and risk assessments.

(3) Protect against, mitigate the effect of, and improve the ability to recover from disruptive incidents within the energy infrastructure.

(b) PROGRAM SCOPE.—The program under subsection (a) shall include research, development, deployment, technology demonstration for—

(1) analysis of energy infrastructure interdependencies to quantify the impacts of system vulnerabilities in relation to each other;

(2) probabilistic risk assessment of the energy infrastructure to account for unconventional and terrorist threats;

(3) incident tracking and trend analysis tools to assess the severity of threats and reported incidents to the energy infrastructure; and

(4) integrated multi-sensor, warning and mitigation technologies to detect, integrate, and localize events affecting the energy infrastructure including real time control to permit the reconfiguration of energy delivery systems.

(c) REGIONAL COORDINATION.—The program under this section shall cooperate with Departmental activities to promote regional coordination under section 102 of this Act, to ensure that the technologies and assessments developed by the program are transferred in a timely manner to State and local authorities, and to the energy industries.

(d) COORDINATION WITH INDUSTRY RESEARCH ORGANIZATIONS.—The Secretary may enter into grants, contracts, and cooperative agreements with industry research organizations to facilitate industry participation in research under this section and to fulfill applicable cost-sharing requirements.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section—

(1) $25,000,000 for fiscal year 2003;

(2) $26,000,000 for fiscal year 2004;

(3) $27,000,000 for fiscal year 2005; and

(4) $28,000,000 for fiscal year 2006.

(f) CRITICAL ENERGY INFRASTRUCTURE FACILITY DEFINED.—For purposes of this section, the term ''critical energy infrastructure facility'' means a physical or cyber-based system or service for the generation, transmission or distribution of electrical energy, or the production, refining, transportation, or storage of petroleum, natural gas, or petroleum product, the incapacity or destruction of which would have a debilitating impact on the defense or economic security of the United States. The term shall not include a facility that is licensed by the Nuclear Regulatory Commission under section 103 or 104b of the Atomic Energy Act of 1954 (42 U.S.C. 2133 and 2134(b)).

SEC. 1262. PIPELINE INTEGRITY, SAFETY, AND RELIABILITY RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary of Transportation, in coordination with the Secretary of Energy, shall develop and implement an accelerated cooperative program of research and development to ensure the integrity of natural gas and hazardous liquid pipelines. This research and development program shall include materials inspection techniques, risk assessment methodology, and information systems surety.

(b) PURPOSE.—The purpose of the cooperative research program shall be to promote research and development to—

(1) ensure long-term safety, reliability and service life for existing pipelines;

(2) expand capabilities of internal inspection devices to identify and accurately measure defects and anomalies;

(3) develop inspection techniques for pipelines that cannot accommodate the internal inspection devices available on the date of enactment;

(4) develop innovative techniques to measure the structural integrity of pipelines to prevent pipeline failures;

(5) develop improved materials and coatings for use in pipelines;

(6) improve the capability, reliability, and practicality of external leak detection devices;

(7) identify underground environments that might lead to shortened service life;

(8) enhance safety in pipeline siting and land use;

(9) minimize the environmental impact of pipelines;

(10) demonstrate technologies that improve pipeline safety, reliability, and integrity;

(11) provide risk assessment tools for optimizing risk mitigation strategies; and

(12) provide highly secure information systems for controlling the operation of pipelines.

(c) AREAS.—In carrying out this section, the Secretary of Transportation, in coordination with the Secretary of Energy, shall consider research and development on natural gas, crude oil, and petroleum product pipelines for—

(1) early crack, defect, and damage detection, including real-time damage monitoring;

(2) automated internal pipeline inspection sensor systems;

(3) land use guidance and set back management along pipeline rights-of-way for communities;

(4) internal corrosion control;

(5) corrosion-resistant coatings;

(6) improved cathodic protection;

(7) inspection techniques where internal inspection is not feasible, including measurement of structural integrity;

(8) external leak detection, including portable real-time video imaging technology, and the advancement of computerized control center leak detection systems utilizing real-time remote field data input;

(9) longer life, high strength, non-corrosive pipeline materials;

(10) assessing the remaining strength of existing pipes;

(11) risk and reliability analysis models, to be used to identify safety improvements that could be realized in the near term resulting from analysis of data obtained from a pipeline performance tracking initiative;

(12) identification, monitoring, and prevention of outside force damage, including satellite surveillance; and

(13) any other areas necessary to ensuring the public safety and protecting the environment.

(d) RESEARCH AND DEVELOPMENT PROGRAM PLAN.—Within 240 days after the date of enactment of this section, the Secretary of Transportation, in coordination with the Secretary of Energy and the Pipeline Integrity Technical Advisory Committee, shall prepare and submit to the Congress a five-year program plan to guide activities under this section. In preparing the program plan, the Secretary shall consult with appropriate representatives of the natural gas, crude oil, and petroleum product pipeline industries to select and prioritize appropriate project proposals. The Secretary may also seek the advice of utilities, manufacturers, institutions of higher learning, Federal agencies, the pipeline research institutions, national laboratories, State pipeline safety officials, environmental organizations, pipeline safety advocates, and professional and technical societies.

(e) IMPLEMENTATION.—The Secretary of Transportation shall have primary responsibility for ensuring the five-year plan provided for in subsection (d) is implemented as intended by this section. In carrying out the research, development, and demonstration activities under this section, the Secretary of Transportation and the Secretary of Energy may use, to the extent authorized under applicable provisions of law, contracts, cooperative agreements, cooperative research and development agreements under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.), grants, joint ventures, other transactions, and any other form of agreement available to the Secretary consistent with the recommendations of the Advisory Committee.

(f) REPORTS TO CONGRESS.—The Secretary of Transportation shall report to the Congress annually as to the status and results to date of the implementation of the research and development program plan. The report shall include the activities of the Departments of Transportation and Energy, the natural laboratories, universities, and any other research organizations, including industry research organizations.

(g) PIPELINE INTEGRITY TECHNICAL ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—The Secretary of Transportation shall enter into appropriate arrangements with the National Academy of

Sciences to establish and manage the Pipeline Integrity Technical Advisory Committee for the purpose of advising the Secretary of Transportation and the Secretary of Energy on the development and implementation of the research and development program plan under subsection (d). The Advisory Committee shall have an ongoing role in evaluating the progress and results of the research, development, and demonstration carried out under this section.

(2) MEMBERSHIP.—The National Academy of Sciences shall appoint the members of the Pipeline Integrity Technical Advisory Committee after consultation with the Secretary of Transportation and the Secretary of Energy. Members appointed to the Advisory Committee should have the necessary qualifications to provide technical contributions to the purposes of the Advisory Committee.

(h) AUTHORIZATION OF APPROPRIATIONS.—(1) There are authorized to be appropriated to the Secretary of Transportation for carrying out this section $3,000,000, to be derived from user fees under section 60301 of title 49, United States Code, for each of the fiscal years 2003 through 2006.

(2) Of the amounts available in the Oil Spill Liability Trust Fund established by section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509), $3,000,000 shall be transferred to the Secretary of Transportation, as provided in appropriation Acts, to carry out programs for detection, prevention and mitigation of oil spills under this section for each of the fiscal years 2003 through 2006.

(3) There are authorized to be appropriated to the Secretary of Energy for carrying out this section such sums as may be necessary for each of the fiscal years 2003 through 2006.

SEC. 1263. RESEARCH AND DEMONSTRATION FOR REMEDIATION OF GROUNDWATER FROM ENERGY ACTIVITIES.

(a) IN GENERAL.—The Secretary shall carry out a research, development, demonstration, and technology deployment program to improve methods for environmental restoration of groundwater contaminated by energy activities, including oil and gas production, surface and underground mining of coal, and in-situ extraction of energy resources.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $10,000,000 for each of fiscal years 2003 through 2006.

TITLE XIII—CLIMATE CHANGE-RELATED RESEARCH AND DEVELOPMENT

Subtitle A—Department of Energy Programs

SEC. 1301. PROGRAM GOALS.

The goals of the research, development, demonstration, and technology deployment programs under this subtitle shall be to—

(1) provide a sound scientific understanding of the human and natural forces that influence the Earth's climate system, particularly those forces related to energy production and use;

(2) help mitigate climate change from human activities related to energy production and use; and

(3) reduce, avoid, or sequester emissions of greenhouse gases in furtherance of the goals of the United National Framework Convention on Climate Change, done at New York on May 9, 1992, in a manner that does not result in serious harm to the U.S. economy.

SEC. 1302. DEPARTMENT OF ENERGY GLOBAL CHANGE SCIENCE RESEARCH.

(a) PROGRAM DIRECTION.—The Secretary, acting through the Office of Science, shall conduct a comprehensive research program to understand and address the effects of energy production and use on the global climate system.

(b) PROGRAM ELEMENTS.—

(1) CLIMATE MODELING.—The Secretary shall—

(A) conduct observational and analytical research to acquire and interpret the data needed to describe the radiation balance from the surface of the Earth to the top of the atmosphere;

(B) determine the factors responsible for the Earth's radiation balance and incorporate improved understanding of such factors in climate models;

(C) improve the treatment of aerosols and clouds in climate models;

(D) reduce the uncertainty in decade-to-century model-based projections of climate change; and

(E) increase the availability and utility of climate change simulations to researchers and policy makers interested in assessing the relationship between energy and climate change.

(2) CARBON CYCLE.—The Secretary shall—

(A) carry out field research and modeling activities—

(i) to understand and document the net exchange of carbon dioxide between major terrestrial ecosystems and the atmosphere; or

(ii) to evaluate the potential of proposed methods of carbon sequestration;

(B) develop and test carbon cycle models; and

(C) acquire data and develop and test models to simulate and predict the transport, transformation, and fate of energy-related emissions in the atmosphere.

(3) ECOLOGICAL PROCESSES.—The Secretary shall carry out long-term experiments of the response of intact terrestrial ecosystems to—

(A) alterations in climate and atmospheric composition; or

(B) land-use changes that affect ecosystem extent and function.

(4) INTEGRATED ASSESSMENT.—The Secretary shall develop and improve methods and tools for integrated analyses of the climate change system from emissions of aerosols and greenhouse gases to the consequences of these emissions on climate and the resulting effects of human-induced climate change on economic and social systems, with emphasis on critical gaps in integrated assessment modeling, including modeling of technology innovation and diffusion and the development of metrics of economic costs of climate change and policies for mitigating or adapting to climate change.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1440(c), there are authorized to be appropriated to the Secretary for carrying out activities under this section—

(1) $150,000,000 for fiscal year 2003;

(2) $175,000,000 for fiscal year 2004;

(3) $200,000,000 for fiscal year 2005; and

(4) $230,000,000 for fiscal year 2006.

(d) LIMITATION ON FUNDS.—Funds authorized to be appropriated under this section shall not be used for the development, demonstration, or deployment of technology to reduce, avoid, or sequester greenhouse gas emissions.

SEC. 1303. AMENDMENTS TO THE FEDERAL NONNUCLEAR RESEARCH AND DEVELOPMENT ACT OF 1974.

Section 6 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5905) is amended—

(1) in subsection (a)—

(A) in paragraph (2), by striking ''and'' at the end;

(B) in paragraph (3) by striking the period at the end and inserting '', and''; and

(C) by adding at the end the following:

''(4) solutions to the effective management of greenhouse gas emissions in the long term by the development of technologies and practices designed to—

''(A) reduce or avoid anthropogenic emissions of greenhouse gases;

''(B) remove and sequester greenhouse gases from emissions streams; and

''(C) remove and sequester greenhouse gases from the atmosphere.''; and

(2) in subsection (b)—

(A) in paragraph (2), by striking ''subsection (a)(1) through (3)'' and inserting ''paragraphs (1) through (4) of subsection (a)''; and

(B) in paragraph (3)—

(i) in subparagraph (R), by striking ''and'' at the end;

(ii) in subparagraph (S), by striking the period at the end and inserting ''; and''; and

(iii) by adding at the end the following:

''(T) to pursue a long-term climate technology strategy designed to demonstrate a variety of technologies by which stabilization of greenhouse gases might be best achieved, including accelerated research, development, demonstration and deployment of—

''(i) renewable energy systems;

''(ii) advanced fossil energy technology;

''(iii) advanced nuclear power plant design;

''(iv) fuel cell technology for residential, industrial and transportation applications;

''(v) carbon sequestration practices and technologies, including agricultural and forestry practices that store and sequester carbon;

''(vi) efficient electrical generation, transmission and distribution technologies; and

''(vii) efficient end use energy technologies.''.

Subtitle B—Department of Agriculture Programs

SEC. 1311. CARBON SEQUESTRATION BASIC AND APPLIED RESEARCH.

(a) BASIC RESEARCH.—

(1) IN GENERAL.—The Secretary of Agriculture shall carry out research in the areas of soil science that promote understanding of—

(A) the net sequestration of organic carbon in soil; and

(B) net emissions of other greenhouse gases from agriculture.

(2) AGRICULTURAL RESEARCH SERVICE.—The Secretary of Agriculture, acting through the Agricultural Research Service, shall collaborate with other Federal agencies in developing data and carrying out research addressing soil carbon fluxes (losses and gains) and net emissions of methane and nitrous oxide from cultivation and animal management activities.

(3) COOPERATIVE STATE RESEARCH, EXTENSION, AND EDUCATION SERVICE.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Cooperative State Research, Extension, and Education Service, shall establish a competitive grant program to carry out research on the matters described in paragraph (1) in land grant universities and other research institutions.

(B) CONSULTATION ON RESEARCH TOPICS.—Before issuing a request for proposals for basic research under paragraph (1), the Cooperative State Research, Extension, and Education Service shall consult with the Agricultural Research Service to ensure that proposed research areas are complementary with and do not duplicate research projects underway at the Agricultural Research Service or other Federal agencies.

(b) APPLIED RESEARCH.—

(1) IN GENERAL.—The Secretary of Agriculture shall carry out applied research in the areas of soil science, agronomy, agricultural economics and other agricultural sciences to—

(A) promote understanding of—

(i) how agricultural and forestry practices affect the sequestration of organic and inorganic carbon in soil and net emissions of other greenhouse gases;

(ii) how changes in soil carbon pools are cost-effectively measured, monitored, and verified; and

(iii) how public programs and private market approaches can be devised to incorporate carbon sequestration in a broader societal greenhouse gas emission reduction effort;

(B) develop methods for establishing baselines for measuring the quantities of carbon and other greenhouse gases sequestered; and

(C) evaluate leakage and performance issues.

(2) REQUIREMENTS.—To the maximum extent practicable, applied research under paragraph (1) shall—

(A) draw on existing technologies and methods; and

(B) strive to provide methodologies that are accessible to a nontechnical audience.

(3) MINIMIZATION OF ADVERSE ENVIRONMENTAL IMPACTS.—All applied research under paragraph (1) shall be conducted with an emphasis on minimizing adverse environmental impacts.

(4) NATURAL RESOURCES CONSERVATION SERVICE.—The Secretary of Agriculture, acting through the Natural Resources Conservation Service, shall collaborate with other Federal agencies, including the National Institute of Standards and Technology, in developing new measuring techniques and equipment or adapting existing techniques and equipment to enable cost-effective and accurate monitoring and verification, for a wide range of agricultural and forestry practices, of—

(A) changes in soil carbon content in agricultural soils, plants, and trees; and

(B) net emissions of other greenhouse gases.

(5) COOPERATIVE STATE RESEARCH, EXTENSION, AND EDUCATION SERVICE.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Cooperative State Research, Extension, and Education Service, shall establish a competitive grant program to encourage research on the matters described in paragraph (1) by land grant universities and other research institutions.

(B) CONSULTATION ON RESEARCH TOPICS.—Before issuing a request for proposals for applied research under paragraph (1), the Cooperative State Research, Extension, and Education Service shall consult with the National Resources Conservation Service and the Agricultural Research Service to ensure that proposed research areas are complementary with and do not duplicate research projects underway at the Agricultural Research Service or other Federal agencies.

(c) RESEARCH CONSORTIA.—

(1) IN GENERAL.—The Secretary of Agriculture may designate not more than 2 research consortia to carry out research projects under this section, with the requirement that the consortia propose to conduct basic research under subsection (a) and applied research under subsection (b).

(2) SELECTION.—The consortia shall be selected in a competitive manner by the Cooperative State Research, Extension, and Education Service.

(3) ELIGIBLE CONSORTIUM PARTICIPANTS.—Entities eligible to participate in a consortium include—

(A) land grant colleges and universities;

(B) private research institutions;

(C) State geological surveys;

(D) agencies of the Department of Agriculture;

(E) research centers of the National Aeronautics and Space Administration and the Department of Energy;

(F) other Federal agencies;

(G) representatives of agricultural businesses and organizations with demonstrated expertise in these areas; and

(H) representatives of the private sector with demonstrated expertise in these areas.

(4) RESERVATION OF FUNDING.—If the Secretary of Agriculture designates 1 or 2 consortia, the Secretary of Agriculture shall reserve for research projects carried out by the consortium or consortia not more than 25 percent of the amounts made available to carry out this section for a fiscal year.

(d) STANDARDS OF PRECISION.—

(1) CONFERENCE.—Not later than 3 years after the date of enactment of this subtitle, the Secretary of Agriculture, acting through the Agricultural Research Service and in consultation with the Natural Resources Conservation Service, shall convene a conference of key scientific experts on carbon sequestration and measurement techniques from various sectors (including the government, academic, and private sectors) to—

(A) discuss benchmark standards of precision for measuring soil carbon content and net emissions of other greenhouse gases;

(B) designate packages of measurement techniques and modeling approaches to achieve a level of precision agreed on by the participants in the conference; and

(C) evaluate results of analyses on baseline, permanence, and leakage issues.

(2) DEVELOPMENT OF BENCHMARK STANDARDS.—

(A) IN GENERAL.—The Secretary shall develop benchmark standards for measuring the carbon content of soils and plants (including trees) based on—

(i) information from the conference under paragraph (1);

(ii) research conducted under this section; and

(iii) other information available to the Secretary.

(B) OPPORTUNITY FOR PUBLIC COMMENT.—The Secretary shall provide an opportunity for the public to comment on benchmark standards developed under subparagraph (A).

(3) REPORT.—Not later than 180 days after the conclusion of the conference under paragraph (1), the Secretary of Agriculture shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report on the results of the conference.

(e) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this section $25,000,000 for each of fiscal years 2003 through 2006.

(2) ALLOCATION.—Of the amounts made available to carry out this section for a fiscal year, at least 50 percent shall be allocated for competitive grants by the Cooperative State Research, Extension, and Education Service.

SEC. 1312. CARBON SEQUESTRATION DEMONSTRATION PROJECTS AND OUTREACH.

(a) DEMONSTRATION PROJECTS.—

(1) DEVELOPMENT OF MONITORING PROGRAMS.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Natural Resources Conservation Service and in cooperation with local extension agents, experts from land grant universities, and other local agricultural or conservation organizations, shall develop user-friendly, programs that combine measurement tools and modeling techniques into integrated packages to monitor the carbon sequestering benefits of conservation practices and net changes in greenhouse gas emissions.

(B) BENCHMARK LEVELS OF PRECISION.—The programs developed under subparagraph (A) shall strive to achieve benchmark levels of precision in measurement in a cost-effective manner.

(2) PROJECTS.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Farm Service Agency, shall establish a program under which projects use the monitoring programs developed under paragraph (1) to demonstrate the feasibility of methods of measuring, verifying, and monitoring—

(i) changes in organic carbon content and other carbon pools in agricultural soils, plants, and trees; and

(ii) net changes in emissions of other greenhouse gases.

(B) EVALUATION OF IMPLICATIONS.—The projects under subparagraph (A) shall include evaluation of the implications for reassessed baselines, carbon or other greenhouse gas leakage, and permanence of sequestration.

(C) SUBMISSION OF PROPOSALS.—Proposals for projects under subparagraph (A) shall be submitted by the appropriate agency of each State, in cooperation with interested local jurisdictions and State agricultural and conservation organizations.

(D) LIMITATION.—Not more than 10 projects under subparagraph (A) may be approved in conjunction with applied research projects under section 1331(b) until benchmark measurement and assessment standards are established under section 1331(d).

(b) OUTREACH.—

(1) IN GENERAL.—The Cooperative State Research, Extension, and Education Service shall widely disseminate information about the economic and environmental benefits that can be generated by adoption of conservation practices (including benefits from increased sequestration of carbon and reduced emission of other greenhouse gases).

(2) PROJECT RESULTS.—The Cooperative State Research, Extension, and Education Service shall inform farmers, ranchers, and State agricultural and energy offices in each State of—

(A) the results of demonstration projects under subsection (a)(2) in the State; and

(B) the ways in which the methods demonstrated in the projects might be applicable to the operations of those farmers and ranchers.

(3) POLICY OUTREACH.—On a periodic basis, the Cooperative State Research, Extension, and Education Service shall disseminate information on the policy nexus between global climate change mitigation strategies and agriculture, so that farmers and ranchers may better understand the global implications of the activities of farmers and ranchers.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this section $10,000,000 for each of fiscal years 2003 through 2006.

(2) ALLOCATION.—Of the amounts made available to carry out this section for a fiscal year, at least 50 percent shall be allocated for demonstration projects under subsection (a)(2).

Subtitle C—Clean Energy Technology Exports Program

SEC. 1321. CLEAN ENERGY TECHNOLOGY EXPORTS PROGRAM.

(a) DEFINITIONS.—In this section:

(1) CLEAN ENERGY TECHNOLOGY.—The term ''clean energy technology'' means an energy supply or end-use technology that, over its lifecycle and compared to a similar technology already in commercial use in developing countries, countries in transition, and other partner countries—

(A) emits substantially lower levels of pollutants or greenhouse gases; and

(B) may generate substantially smaller or less toxic volumes of solid or liquid waste.

(2) INTERAGENCY WORKING GROUP.—The term ''interagency working group'' means

the Interagency Working Group on Clean Energy Technology Exports established under subsection (b).

(b) INTERAGENCY WORKING GROUP.—

(1) ESTABLISHMENT.—Not later than 90 days after the date of enactment of this section, the Secretary of Energy, the Secretary of Commerce, and the Administrator of the U.S. Agency for International Development shall jointly establish a Interagency Working Group on Clean Energy Technology Exports. The interagency working group will focus on opening and expanding energy markets and transferring clean energy technology to the developing countries, countries in transition, and other partner countries that are expected to experience, over the next 20 years, the most significant growth in energy production and associated greenhouse gas emissions, including through technology transfer programs under the Framework Convention on Climate Change, other international agreements, and relevant Federal efforts.

(2) MEMBERSHIP.—The interagency working group shall be jointly chaired by representatives appointed by the agency heads under paragraph (1) and shall also include representatives from the Department of State, the Department of Treasury, the Environmental Protection Agency, the Export-Import Bank, the Overseas Private Investment Corporation, the Trade and Development Agency, and other federal agencies as deemed appropriate by all three agency heads under paragraph (1).

(3) DUTIES.—The interagency working group shall—

(A) analyze technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology;

(B) investigate issues associated with building capacity to deploy clean energy technology in developing countries, countries in transition, and other partner countries, including—

(i) energy-sector reform;

(ii) creation of open, transparent, and competitive markets for energy technologies;

(iii) availability of trained personnel to deploy and maintain the technology; and

(iv) demonstration and cost-buydown mechanisms to promote first adoption of the technology;

(C) examine relevant trade, tax, international, and other policy issues to assess what policies would help open markets and improve U.S. clean energy technology exports in support of the following areas—

(i) enhancing energy innovation and cooperation, including energy sector and market reform, capacity building, and financing measures;

(ii) improving energy end-use efficiency technologies, including buildings and facilities, vehicle, industrial, and co-generation technology initiatives; and

(iii) promoting energy supply technologies, including fossil, nuclear, and renewable technology initiatives.

(D) establish an advisory committee involving the private sector and other interested groups on the export and deployment of clean energy technology;

(E) monitor each agency's progress towards meeting goals in the 5-year strategic plan submitted to Congress pursuant to the Energy and Water Development Appropriations Act, 2001, and the Energy and Water Development Appropriations Act, 2002;

(F) make recommendations to heads of appropriate Federal agencies on ways to streamline federal programs and policies to improve each agency's role in the international development, demonstration, and deployment of clean energy technology;

(G) make assessments and recommendations regarding the distinct technological, market, regional, and stakeholder challenges necessary to carry out the program; and

(H) recommend conditions and criteria that will help ensure that United States funds promote sound energy policies in participating countries while simultaneously opening their markets and exporting United States energy technology.

(c) FEDERAL SUPPORT FOR CLEAN ENERGY TECHNOLOGY TRANSFER.—Notwithstanding any other provision of law, each federal agency or government corporation carrying out an assistance program in support of the activities of United States persons in the environment or energy sector of a developing country, country in transition, or other partner country shall support, to the maximum extent practicable, the transfer of United States clean energy technology as part of that program.

(d) ANNUAL REPORT.—Not later than April 1, 2002, and each year thereafter, the Interagency Working Group shall submit a report to Congress on its activities during the preceding calendar year. The report shall include a description of the technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology investigated by the Interagency Working Group in that year, as well as any policy recommendations to improve the expansion of clean energy markets and U.S. clean energy technology exports.

(e) REPORT ON USE OF FUNDS.—Not later than October 1, 2002, and each year thereafter, the Secretary of State, in consultation with other federal agencies, shall submit a report to Congress indicating how United States funds appropriated for clean energy technology exports and other relevant federal programs are being directed in a manner that promotes sound energy policy commitments in developing countries, countries in transition, and other partner countries, including efforts pursuant to multi-lateral environmental agreements.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the departments, agencies, and entities of the United States described in subsection (b) such sums as may be necessary to support the transfer of clean energy technology, consistent with the subsidy codes of the World Trade Organization, as part of assistance programs carried out by those departments, agencies, and entities in support of activities of United States persons in the energy sector of a developing country, country in transition, or other partner country.

SEC. 1322. INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.

(a) IN GENERAL.—Section 1608 of the Energy Policy Act of 1992 (42 U.S.C. 13387) is amended by striking subsection (*l*) and inserting the following:

''(*l*) INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.—

''(1) DEFINITIONS.—In this subsection:

''(A) INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term 'international energy deployment project' means a project to construct an energy production facility outside the United States—

''(i) the output of which will be consumed outside the United States; and

''(ii) the deployment of which will result in a greenhouse gas reduction per unit of energy produced when compared to the technology that would otherwise be implemented—

''(I) 10 percentage points or more, in the case of a unit placed in service before January 1, 2010;

''(II) 20 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

''(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

''(B) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term 'qualifying international energy deployment project' means an international energy deployment project that—

''(i) is submitted by a United States firm to the Secretary in accordance with procedures established by the Secretary by regulation;

''(ii) uses technology that has been successfully developed or deployed in the United States;

''(iii) meets the criteria of subsection (k);

''(iv) is approved by the Secretary, with notice of the approval being published in the Federal Register; and

''(v) complies with such terms and conditions as the Secretary establishes by regulation.

''(C) UNITED STATES.—For purposes of this paragraph, the term 'United States', when used in a geographical sense, means the 50 States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

''(2) PILOT PROGRAM FOR FINANCIAL ASSISTANCE.—

''(A) IN GENERAL.—Not later than 180 days after the date of enactment of this subsection, the Secretary shall, by regulation, provide for a pilot program for financial assistance for qualifying international energy deployment projects.

''(B) SELECTION CRITERIA.—After consultation with the Secretary of State, the Secretary of Commerce, and the United States Trade Representative, the Secretary shall select projects for participation in the program based solely on the criteria under this title and without regard to the country in which the project is located.

''(C) FINANCIAL ASSISTANCE.—

''(i) IN GENERAL.—A United States firm that undertakes a qualifying international energy deployment project that is selected to participate in the pilot program shall be eligible to receive a loan or a loan guarantee from the Secretary.

''(ii) RATE OF INTEREST.—The rate of interest of any loan made under clause (i) shall be equal to the rate for Treasury obligations then issued for periods of comparable maturities.

''(iii) AMOUNT.—The amount of a loan or loan guarantee under clause (i) shall not exceed 50 percent of the total cost of the qualified international energy deployment project.

''(iv) DEVELOPED COUNTRIES.—Loans or loan guarantees made for projects to be located in a developed country, as listed in Annex I of the United Nations Framework Convention on Climate Change, shall require at least a 50 percent contribution towards the total cost of the loan or loan guarantee by the host country.

''(v) DEVELOPING COUNTRIES.—Loans or loan guarantees made for projects to be located in a developing country (those countries not listed in Annex I of the United Nations Framework Convention on Climate Change) shall require at least a 10 percent contribution towards the total cost of the loan or loan guarantee by the host country.

''(vi) CAPACITY BUILDING RESEARCH.—Proposals made for projects to be located in a developing country may include a research component intended to build technological capacity within the host country. Such research must be related to the technologies

being deployed and must involve both an institution in the host country and an industry, university or national laboratory participant from the United States. The host institution shall contribute at least 50 percent of funds provided for the capacity building research.

''(D) COORDINATION WITH OTHER PROGRAMS.—A qualifying international energy deployment project funded under this section shall not be eligible as a qualifying clean coal technology under section 415 of the Clean Air Act (42 U.S.C. 7651n).

''(E) REPORT.—Not later than 5 years after the date of enactment of this subsection, the Secretary shall submit to the President a report on the results of the pilot projects.

''(F) RECOMMENDATION.—Not later than 60 days after receiving the report under subparagraph (E), the President shall submit to Congress a recommendation, based on the results of the pilot projects as reported by the Secretary of Energy, concerning whether the financial assistance program under this section should be continued, expanded, reduced, or eliminated.

''(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $100,000,000 for each of fiscal years 2003 through 2011, to remain available until expended.''.

Subtitle D—Climate Change Science and Information

PART I—AMENDMENTS TO THE GLOBAL CHANGE RESEARCH ACT OF 1990

SEC. 1331. AMENDMENT OF GLOBAL CHANGE RESEARCH ACT OF 1990.

Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.).

SEC. 1332. CHANGES IN DEFINITIONS.

Paragraph (1) of section 2 (15 U.S.C. 2921) is amended by striking ''Earth and'' and inserting ''Climate and''.

SEC. 1333. CHANGE IN COMMITTEE NAME.

Section 102 (15 U.S.C. 2932) is amended—

(1) by striking ''EARTH AND'' in the section heading and inserting ''CLIMATE AND''; and

(2) by striking ''Earth and'' in subsection (a) and inserting ''Climate and''.

SEC. 1334. CHANGE IN NATIONAL GLOBAL CHANGE RESEARCH PLAN.

Section 104 (15 U.S.C. 2934) is amended—

(1) by adding at the end of subsection (c) the following:

''(6) Methods for integrating information to provide predictive tools for planning and decision making by governments, communities and the private sector.'';

(2) by inserting ''local, State, and Federal'' before ''policy makers'' in subsection (d)(3);

(3) by striking ''and'' in subsection (d)(2);

(4) by striking ''change.'' in subsection (d)(3) and inserting ''change; and'';

(5) by adding at the end of subsection (d) the following:

''(4) establish a common assessment and modeling framework that may be used in both research and operations to predict and assess the vulnerability of natural and managed ecosystems and of human society in the context of other environmental and social changes.''; and

(6) by adding at the end the following:

''(g) STRATEGIC PLAN; REVISED IMPLEMENTATION PLAN.—The Chairman of the Council, through the Committee, shall develop a strategic plan for the United States Global Climate Change Research Program for the 10-year period beginning in 2002 and submit the plan to the Congress within 180 days after the date of enactment of the Global Climate Change Act of 2002. The Chairman, through the Committee, shall also submit a revised implementation plan under subsection (a).''.

SEC. 1335. INTEGRATED PROGRAM OFFICE.

Section 105 (15 U.S.C. 2935) is amended—

(1) by redesignating subsections (a), (b), and (c) as subsections (b), (c), and (d), respectively; and

(2) inserting before subsection (b), as redesignated, the following:

''(a) INTEGRATED PROGRAM OFFICE.—

''(1) ESTABLISHMENT.—There is established in the Office of Science and Technology Policy an integrated program office for the global change research program.

''(2) ORGANIZATION.—The integrated program office established under paragraph (1) shall be headed by the associate director with responsibility for climate change science and technology and shall include a representative from each Federal agency participating in the global change research program.

''(3) FUNCTION.—The integrated program office shall—

''(A) manage, working in conjunction with the Committee, interagency coordination and program integration of global change research activities and budget requests;

''(B) ensure that the activities and programs of each Federal agency or department participating in the program address the goals and objectives identified in the strategic research plan and interagency implementation plans;

''(C) ensure program and budget recommendations of the Committee are communicated to the President and are integrated into the climate change action strategy;

''(D) review, solicit, and identify, and allocate funds for, partnership projects that address critical research objectives or operational goals of the program, including projects that would fill research gaps identified by the program, and for which project resources are shared among at least 2 agencies participating in the program; and

''(E) review and provide recommendations on, in conjunction with the Committee, all annual appropriations requests from Federal agencies or departments participating in the program.

''(4) GRANT AUTHORITY.—The Integrated Program Office may authorize 1 or more of the departments or agencies participating in the program to enter into contracts and make grants, using funds appropriated for use by the Office of Science and Technology Policy for the purpose of carrying out the responsibilities of that Office.

''(5) FUNDING.—For fiscal year 2003, and each fiscal year thereafter, not less than $13,000,000 shall be made available to the Integrated Program Office from amounts appropriated to or for the use of the Office of Science and Technology Policy.'';

(3) by striking ''Committee.'' in paragraph (2) of subsection (c), as redesignated, and inserting ''Committee and the Integrated Program Office.''; and

(4) by inserting ''and the Integrated Program Office'' after ''Committee'' in paragraph (1) of subsection (d), as redesignated.

PART II—NATIONAL CLIMATE SERVICES AND MONITORING

SEC. 1341. AMENDMENT OF NATIONAL CLIMATE PROGRAM ACT.

Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the National Climate Program Act (15 U.S.C. 2901 et seq.).

SEC. 1342. CHANGES IN FINDINGS.

Section 2 (15 U.S.C. 2901) is amended—

(1) by striking ''Weather and climate change affect'' in paragraph (1) and inserting ''Weather, climate change, and climate variability affect public safety, environmental security, human health,'';

(2) by striking ''climate'' in paragraph (2) and inserting ''climate, including seasonal and decadal fluctuations,'';

(3) by striking ''changes.'' in paragraph (5) and inserting ''changes and providing free exchange of meteorological data.''; and

(4) by adding at the end the following:

''(7) The present rate of advance in research and development is inadequate and new developments must be incorporated rapidly into services for the benefit of the public.

''(8) The United States lacks adequate infrastructure and research to meet national climate monitoring and prediction needs.''.

SEC. 1343. TOOLS FOR REGIONAL PLANNING.

Section 5(d) (15 U.S.C. 2904(d)) is amended—

(1) by redesignating paragraphs (4) through (9) as paragraphs (5) through (10), respectively;

(2) by inserting after paragraph (3) the following:

''(4) methods for improving modeling and predictive capabilities and developing assessment methods to guide national, regional, and local planning and decision-making on land use, water hazards, and related issues;''

(3) by inserting ''sharing,'' after ''collection,'' in paragraph (5), as redesignated;

(4) by striking ''experimental'' each place it appears in paragraph (9), as redesignated;

(5) by striking ''preliminary'' in paragraph (10), as redesignated;

(6) by striking ''this Act,'' the first place it appears in paragraph (10), as redesignated, and inserting ''the Global Climate Change Act of 2002,''; and

(7) by striking ''this Act,'' the second place it appears in paragraph (10), as redesignated, and inserting ''that Act,''.

SEC. 1344. AUTHORIZATION OF APPROPRIATIONS.

Section 9 (15 U.S.C. 2908) is amended—

(1) by striking ''1979,'' and inserting ''2002,'';

(2) by striking ''1980,'' and inserting ''2003,'';

(3) by striking ''1981,'' and inserting ''2004,''; and

(4) by striking ''$25,500,000'' and inserting ''$75,500,000''.

SEC. 1345. NATIONAL CLIMATE SERVICE PLAN.

The Act (15 U.S.C. 2901 et seq.) is amended by inserting after section 5 the following:

''SEC. 6. NATIONAL CLIMATE SERVICE PLAN.

''Within one year after the date of enactment of the Global Climate Change Act of 2002, the Secretary of Commerce shall submit to the Senate Committee on Commerce, Science, and Transportation and the House Science Committee a plan of action for a National Climate Service under the National Climate Program. The plan shall set forth recommendations and funding estimates for—

''(1) a national center for operational climate monitoring and predicting with the functional capacity to monitor and adjust observing systems as necessary to reduce bias;

''(2) the design, deployment, and operation of an adequate national climate observing system that builds upon existing environmental monitoring systems and closes gaps in coverage by existing systems;

''(3) the establishment of a national coordinated modeling strategy, including a national climate modeling center to provide a dedicated capability for climate modeling and a regular schedule of projections on a long and short term time schedule and at a range of spatial scales;

''(4) improvements in modeling and assessment capabilities needed to integrate information to predict regional and local climate changes and impacts;

''(5) in coordination with the private sector, improving the capacity to assess the impacts of predicted and projected climate changes and variations;

''(6) a program for long term stewardship, quality control, development of relevant climate products, and efficient access to all relevant climate data, products, and critical model simulations; and

''(7) mechanisms to coordinate among Federal agencies, State, and local government entities and the academic community to ensure timely and full sharing and dissemination of climate information and services, both domestically and internationally.''.

SEC. 1346. INTERNATIONAL PACIFIC RESEARCH AND COOPERATION.

The Secretary of Commerce, in cooperation with the Administrator of the National Aeronautics and Space Administration, shall conduct international research in the Pacific region that will increase understanding of the nature and predictability of climate variability in the Asia- Pacific sector, including regional aspects of global environmental change. Such research activities shall be conducted in cooperation with other nations of the region. There are authorized to be appropriated for purposes of this section $1,500,000 to the National Oceanic and Atmospheric Administration, $1,500,000 to the National Aeronautics and Space Administration, and $500,000 for the Pacific ENSO Applications Center.

SEC. 1347. REPORTING ON TRENDS.

(a) ATMOSPHERIC MONITORING AND VERIFICATION PROGRAM.—The Secretary of Commerce, in coordination with relevant Federal agencies, shall, as part of the National Climate Service, establish an atmospheric monitoring and verification program utilizing aircraft, satellite, ground sensors, and modeling capabilities to monitor, measure, and verify atmospheric greenhouse gas levels, dates, and emissions. Where feasible, the program shall measure emissions from identified sources participating in the reporting system for verification purposes. The program shall use measurements and standards that are consistent with those utilized in the greenhouse gas measurement and reporting system established under subsection (a) and the registry established under section 1102.

(b) ANNUAL REPORTING.—The Secretary of Commerce shall issue an annual report that identifies greenhouse emissions and trends on a local, regional, and national level. The report shall also identify emissions or reductions attributable to individual or multiple sources covered by the greenhouse gas measurement and reporting system established under section 1102.

PART III—OCEAN AND COASTAL OBSERVING SYSTEM

SEC. 1351. OCEAN AND COASTAL OBSERVING SYSTEM.

(a) ESTABLISHMENT.—The President, through the National Ocean Research Leadership Council, established by section 7902(a) of title 10, United States Code, shall establish and maintain an integrated ocean and coastal observing system that provides for long-term, continuous, and real-time observations of the oceans and coasts for the purposes of—

(1) understanding, assessing and responding to human-induced and natural processes of global change;

(2) improving weather forecasts and public warnings;

(3) strengthening national security and military preparedness;

(4) enhancing the safety and efficiency of marine operations;

(5) supporting efforts to restore the health of and manage coastal and marine ecosystems and living resources;

(6) monitoring and evaluating the effectiveness of ocean and coastal environmental policies;

(7) reducing and mitigating ocean and coastal pollution; and

(8) providing information that contributes to public awareness of the state and importance of the oceans.

(b) COUNCIL FUNCTIONS.—In addition to its responsibilities under section 7902(a) of such title, the Council shall be responsible for planning and coordinating the observing system and in carrying out this responsibility shall—

(1) develop and submit to the Congress, within 6 months after the date of enactment of this Act, a plan for implementing a national ocean and coastal observing system that—

(A) uses an end-to-end engineering and development approach to develop a system design and schedule for operational implementation;

(B) determines how current and planned observing activities can be integrated in a cost-effective manner;

(C) provides for regional and concept demonstration projects;

(D) describes the role and estimated budget of each Federal agency in implementing the plan;

(E) contributes, to the extent practicable, to the National Global Change Research Plan under section 104 of the Global Change Research Act of 1990 (15 U.S.C. 2934); and

(F) makes recommendations for coordination of ocean observing activities of the United States with those of other nations and international organizations;

(2) serve as the mechanism for coordinating Federal ocean observing requirements and activities;

(3) work with academic, State, industry and other actual and potential users of the observing system to make effective use of existing capabilities and incorporate new technologies;

(4) approve standards and protocols for the administration of the system, including—

(A) a common set of measurements to be collected and distributed routinely and by uniform methods;

(B) standards for quality control and assessment of data;

(C) design, testing and employment of forecast models for ocean conditions;

(D) data management, including data transfer protocols and archiving; and

(E) designation of coastal ocean observing regions; and

(5) in consultation with the Secretary of State, provide representation at international meetings on ocean observing programs and coordinate relevant Federal activities with those of other nations.

(c) SYSTEM ELEMENTS.—The integrated ocean and coastal observing system shall include the following elements:

(1) A nationally coordinated network of regional coastal ocean observing systems that measure and disseminate a common set of ocean observations and related products in a uniform manner and according to sound scientific practice, but that are adapted to local and regional needs.

(2) Ocean sensors for climate observations, including the Arctic Ocean and sub-polar seas.

(3) Coastal, relocatable, and cabled sea floor observatories.

(4) Broad bandwidth communications that are capable of transmitting high volumes of data from open ocean locations at low cost and in real time.

(5) Ocean data management and assimilation systems that ensure full use of new sources of data from space-borne and in situ sensors.

(6) Focused research programs.

(7) Technology development program to develop new observing technologies and techniques, including data management and dissemination.

(8) Public outreach and education.

SEC. 1352. AUTHORIZATION OF APPROPRIATIONS.

For development and implementation of an integrated ocean and coastal observation system under this title, including financial assistance to regional coastal ocean observing systems, there are authorized to be appropriated $235,000,000 in fiscal year 2003, $315,000,000 in fiscal year 2004, $390,000,000 in fiscal year 2005, and $445,000,000 in fiscal year 2006.

Subtitle E—Climate Change Technology

SEC. 1361. NIST GREENHOUSE GAS FUNCTIONS.

Section 2(c) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)) is amended—

(1) striking ''and'' after the semicolon in paragraph (21);

(2) by redesignating paragraph (22) as paragraph (23); and

(3) by inserting after paragraph (21) the following:

''(22) perform research to develop enhanced measurements, calibrations, standards, and technologies which will enable the reduced production in the United States of greenhouse gases associated with global warming, including carbon dioxide, methane, nitrous oxide, ozone, perfluorocarbons, hydrofluorocarbons, and sulphur hexafluoride; and''.

SEC. 1362. DEVELOPMENT OF NEW MEASUREMENT TECHNOLOGIES.

(a) IN GENERAL.—The Secretary of Commerce shall initiate a program to develop, with technical assistance from appropriate Federal agencies, innovative standards and measurement technologies (including technologies to measure carbon changes due to changes in land use cover) to calculate—

(1) greenhouse gas emissions and reductions from agriculture, forestry, and other land use practices;

(2) non-carbon dioxide greenhouse gas emissions from transportation;

(3) greenhouse gas emissions from facilities or sources using remote sensing technology; and

(4) any other greenhouse gas emission or reductions for which no accurate or reliable measurement technology exists.

SEC. 1363. ENHANCED ENVIRONMENTAL MEASUREMENTS AND STANDARDS.

The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended—

(1) by redesignating sections 17 through 32 as sections 18 through 33, respectively; and

(2) by inserting after section 16 the following:

"SEC. 17. CLIMATE CHANGE STANDARDS AND PROCESSES.

''(a) IN GENERAL.—The Director shall establish within the Institute a program to perform and support research on global climate change standards and processes, with the goal of providing scientific and technical knowledge applicable to the reduction of greenhouse gases (as defined in section 4 of the Global Climate Change Act of 2002).

''(b) RESEARCH PROGRAM.—

''(1) IN GENERAL.—The Director is authorized to conduct, directly or through contracts or grants, a global climate change standards and processes research program.

''(2) RESEARCH PROJECTS.—The specific contents and priorities of the research program

shall be determined in consultation with appropriate Federal agencies, including the Environmental Protection Agency, the National Oceanic and Atmospheric Administration, and the National Aeronautics and Space Administration. The program generally shall include basic and applied research—

''(A) to develop and provide the enhanced measurements, calibrations, data, models, and reference material standards which will enable the monitoring of greenhouse gases;

''(B) to assist in establishing of a baseline reference point for future trading in greenhouse gases and the measurement of progress in emissions reduction;

''(C) that will be exchanged internationally as scientific or technical information which has the stated purpose of developing mutually recognized measurements, standards, and procedures for reducing greenhouse gases; and

''(D) to assist in developing improved industrial processes designed to reduce or eliminate greenhouse gases.

''(c) NATIONAL MEASUREMENT LABORATORIES.—

''(1) IN GENERAL.—In carrying out this section, the Director shall utilize the collective skills of the National Measurement Laboratories of the National Institute of Standards and Technology to improve the accuracy of measurements that will permit better understanding and control of these industrial chemical processes and result in the reduction or elimination of greenhouse gases.

''(2) MATERIAL, PROCESS, AND BUILDING RESEARCH.—The National Measurement Laboratories shall conduct research under this subsection that includes—

''(A) developing material and manufacturing processes which are designed for energy efficiency and reduced greenhouse gas emissions into the environment;

''(B) developing environmentally-friendly, 'green' chemical processes to be used by industry; and

''(C) enhancing building performance with a focus in developing standards or tools which will help incorporate low or no-emission technologies into building designs.

''(3) STANDARDS AND TOOLS.—The National Measurement Laboratories shall develop standards and tools under this subsection that include software to assist designers in selecting alternate building materials, performance data on materials, artificial intelligence-aided design procedures for building subsystems and 'smart buildings', and improved test methods and rating procedures for evaluating the energy performance of residential and commercial appliances and products.

''(d) NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.—The Director shall utilize the National Voluntary Laboratory Accreditation Program under this section to establish a program to include specific calibration or test standards and related methods and protocols assembled to satisfy the unique needs for accreditation in measuring the production of greenhouse gases. In carrying out this subsection the Director may cooperate with other departments and agencies of the Federal Government, State and local governments, and private organizations.''.

SEC. 1364. TECHNOLOGY DEVELOPMENT AND DIFFUSION.

(a) ADVANCED TECHNOLOGY PROGRAM COMPETITIONS.—The Director of the National Institute of Standards and Technology, through the Advanced Technology Program, may hold a portion of the Institute's competitions in thematic areas, selected after consultation with industry, academics, and other Federal Agencies, designed to develop and commercialize enabling technologies to address global climate change by significantly reducing greenhouse gas emissions and concentrations in the atmosphere.

(b) MANUFACTURING EXTENSION PARTNERSHIP PROGRAM FOR ''GREEN'' MANUFACTURING.—The Director of the National Institute of Standards and Technology, through the Manufacturing Extension Partnership Program, may develop a program to support the implementation of new ''green'' manufacturing technologies and techniques by the more than 380,000 small manufacturers.

SEC. 1365. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Director to carry out functions pursuant to sections 1345, 1351, and 1361 through 1363, $10,000,000 for fiscal years 2002 through 2006.

Subtitle F—Climate Adaptation and Hazards Prevention

PART I—ASSESSMENT AND ADAPTATION

SEC. 1371. REGIONAL CLIMATE ASSESSMENT AND ADAPTATION PROGRAM.

(a) IN GENERAL.—The President shall establish within the Department of Commerce a National Climate Change Vulnerability and Adaptation Program for regional impacts related to increasing concentrations of greenhouse gases in the atmosphere and climate variability.

(b) COORDINATION.—In designing such program the Secretary shall consult with the Federal Emergency Management Agency, the Environmental Protection Agency, the Army Corps of Engineers, the Department of Transportation, and other appropriate Federal, State, and local government entities.

(c) VULNERABILITY ASSESSMENTS.—The program shall—

(1) evaluate, based on predictions developed under this Act and the National Climate Program Act (15 U.S.C. 2901 et seq.), regional vulnerability to phenomena associated with climate change and climate variability, including—

(A) increases in severe weather events;

(B) sea level rise and shifts in the hydrological cycle;

(C) natural hazards, including tsunami, drought, flood and fire; and

(D) alteration of ecological communities, including at the ecosystem or watershed levels; and

(2) build upon predictions and other information developed in the National Assessments prepared under the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.).

(d) PREPAREDNESS RECOMMENDATIONS.—The program shall submit a report to Congress within 2 years after the date of enactment of this Act that identifies and recommends implementation and funding strategies for short and long-term actions that may be taken at the national, regional, State, and local level—

(1) to minimize threats to human life and property,

(2) to improve resilience to hazards,

(3) to minimize economic impacts; and

(4) to reduce threats to critical biological and ecological processes.

(e) INFORMATION AND TECHNOLOGY.—The Secretary shall make available appropriate information and other technologies and products that will assist national, regional, State, and local efforts to reduce loss of life and property, and coordinate dissemination of such technologies and products.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce $4,500,000 to implement the requirements of this section.

SEC. 1372. COASTAL VULNERABILITY AND ADAPTATION.

(a) COASTAL VULNERABILITY.—Within 2 years after the date of enactment of this Act, the Secretary shall, in consultation with the appropriate Federal, State, and local governmental entities, conduct regional assessments of the vulnerability of coastal areas to hazards associated with climate change, climate variability, sea level rise, and fluctuation of Great Lakes water levels. The Secretary may also establish, as warranted, longer term regional assessment programs. The Secretary may also consult with the governments of Canada and Mexico as appropriate in developing such regional assessments. In preparing the regional assessments, the Secretary shall collect and compile current information on climate change, sea level rise, natural hazards, and coastal erosion and mapping, and specifically address impacts on Arctic regions and the Central, Western, and South Pacific regions. The regional assessments shall include an evaluation of—

(1) social impacts associated with threats to and potential losses of housing, communities, and infrastructure;

(2) physical impacts such as coastal erosion, flooding and loss of estuarine habitat, saltwater intrusion of aquifers and saltwater encroachment, and species migration; and

(3) economic impact on local, State, and regional economies, including the impact on abundance or distribution of economically important living marine resources.

(b) COASTAL ADAPTATION PLAN.—The Secretary shall, within 3 years after the date of enactment of this Act, submit to the Congress a national coastal adaptation plan, composed of individual regional adaptation plans that recommend targets and strategies to address coastal impacts associated with climate change, sea level rise, or climate variability. The plan shall be developed with the participation of other Federal, State, and local government agencies that will be critical in the implementation of the plan at the State and local levels. The regional plans that will make up the national coastal adaptation plan shall be based on the information contained in the regional assessments and shall identify special needs associated with Arctic areas and the Central, Western, and South Pacific regions. The Plan shall recommend both short and long-term adaptation strategies and shall include recommendations regarding—

(1) Federal flood insurance program modifications;

(2) areas that have been identified as high risk through mapping and assessment;

(3) mitigation incentives such as rolling easements, strategic retreat, State or Federal acquisition in fee simple or other interest in land, construction standards, and zoning;

(4) land and property owner education;

(5) economic planning for small communities dependent upon affected coastal resources, including fisheries; and

(6) funding requirements and mechanisms.

(c) TECHNICAL PLANNING ASSISTANCE.—The Secretary, through the National Ocean Service, shall establish a coordinated program to provide technical planning assistance and products to coastal States and local governments as they develop and implement adaptation or mitigation strategies and plans. Products, information, tools and technical expertise generated from the development of the regional assessments and the regional adaptation plans will be made available to coastal States for the purposes of developing their own State and local plans.

(d) COASTAL ADAPTATION GRANTS.—The Secretary shall provide grants of financial assistance to coastal States with Federally approved coastal zone management programs to develop and begin implementing coastal adaptation programs if the State provides a Federal-to-State match of 4 to 1 in the first fiscal year, 2.3 to 1 in the second fiscal year, 2 to 1 in the third fiscal year, and

1 to 1 thereafter. Distribution of these funds to coastal states shall be based upon the formula established under section 306(c) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455(c)), adjusted in consultation with the States as necessary to provide assistance to particularly vulnerable coastlines.

(e) COASTAL RESPONSE PILOT PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a 4-year pilot program to provide financial assistance to coastal communities most adversely affected by the impact of climate change or climate variability that are located in States with Federally approved coastal zone management programs.

(2) ELIGIBLE PROJECTS.—A project is eligible for financial assistance under the pilot program if it—

(A) will restore or strengthen coastal resources, facilities, or infrastructure that have been damaged by such an impact, as determined by the Secretary;

(B) meets the requirements of the Coastal Zone Management Act (16 U.S.C. 1451 et seq.) and is consistent with the coastal zone management plan of the State in which it is located; and

(C) will not cost more than $100,000.

(3) FUNDING SHARE.—The Federal funding share of any project under this subsection may not exceed 75 percent of the total cost of the project. In the administration of this paragraph—

(A) the Secretary may take into account in-kind contributions and other non-cash support of any project to determine the Federal funding share for that project; and

(B) the Secretary may waive the requirements of this paragraph for a project in a community if—

(i) the Secretary determines that the project is important; and

(ii) the economy and available resources of the community in which the project is to be conducted are insufficient to meet the non-Federal share of the projects's costs.

(f) DEFINITIONS.—Any term used in this section that is defined in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453) has the meaning given it by that section.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $3,000,000 annually for regional assessments under subsection (a), and $3,000,000 annually for coastal adaptation grants under subsection (d).

PART II—FORECASTING AND PLANNING PILOT PROGRAMS

SEC. 1381. REMOTE SENSING PILOT PROJECTS.

(a) IN GENERAL.—The Administrator of the National Aeronautics and Space Administration shall establish, through the National Oceanic and Atmospheric Administration's Coastal Services Center, a program of grants for competitively awarded pilot projects to explore the integrated use of sources of remote sensing and other geospatial information to address State, local, regional, and tribal agency needs to forecast a plan for adaptation to coastal zone and land use changes that may result as a consequence of global climate change or climate variability.

(b) PREFERRED PROJECTS.—In awarding grants under this section, the Center shall give preference to projects that—

(1) focus on areas that are most sensitive to the consequences of global climate change or climate variability;

(2) make use of existing public or commercial data sets;

(3) integrate multiple sources of geospatial information, such as geographic information system data, satellite-provided positioning data, and remotely sensed data, in innovative ways;

(4) offer diverse, innovative approaches that may serve as models for establishing a future coordinated framework for planning strategies for adaptation to coastal zone and land use changes related to global climate change or climate variability;

(5) include funds or in-kind contributions from non-Federal sources;

(6) involve the participation of commercial entities that process raw or lightly processed data, often merging that data with other geospatial information, to create data products that have significant value added to the original data; and

(7) taken together demonstrate as diverse a set of public sector applications as possible.

(c) OPPORTUNITIES.—In carrying out this section, the Center shall seek opportunities to assist—

(1) in the development of commercial applications potentially available from the remote sensing industry; and

(2) State, local, regional, and tribal agencies in applying remote sensing and other geospatial information technologies for management and adaptation to coastal and land use consequences of global climate change or climate variability.

(d) DURATION.—Assistance for a pilot project under subsection (a) shall be provided for a period of not more than 3 years.

(e) RESPONSIBILITIES OF GRANTEES.—Within 180 days after completion of a grant project, each recipient of a grant under subsection (a) shall transmit a report to the Center on the results of the pilot project and conduct at least one workshop for potential users to disseminate the lessons learned from the pilot project as widely as feasible.

(f) REGULATIONS.—The Center shall issue regulations establishing application, selection, and implementation procedures for pilot projects, and guidelines for reports and workshops required by this section.

SEC. 1382. DATABASE ESTABLISHMENT.

The Center shall establish and maintain an electronic, Internet-accessible database of the results of each pilot project completed under section 1381.

SEC. 1383. DEFINITIONS.

In this subtitle:

(1) CENTER.—The term ''Center'' means the Coastal Services Center of the National Oceanic and Atmospheric Administration.

(2) GEOSPATIAL INFORMATION.—The term ''geospatial information'' means knowledge of the nature and distribution of physical and cultural features on the landscape based on analysis of data from airborne or spaceborne platforms or other types and sources of data.

(3) INSTITUTION OF HIGHER EDUCATION.—The term ''institution of higher education'' has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

SEC. 1384. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Administrator to carry out the provisions of this subtitle—

(1) $17,500,000 for fiscal year 2003;

(2) $20,000,000 for fiscal year 2004;

(3) $22,500,000 for fiscal year 2005; and

(4) $25,000,000 for fiscal year 2006.

TITLE XIV—MANAGEMENT OF DOE SCIENCE AND TECHNOLOGY PROGRAMS

SEC. 1401. DEFINITIONS.

In this title:

(1) APPLICABILITY OF DEFINITIONS.—The definitions in section 1203 shall apply.

(2) SINGLE-PURPOSE RESEARCH FACILITY.—The term ''single-purpose research facility'' means any of the following primarily single purpose entities owned by the Department of Energy—

(A) Ames Laboratory;

(B) East Tennessee Technology Park;

(C) Environmental Measurement Laboratory;

(D) Fernald Environmental Management Project;

(E) Fermi National Accelerator Laboratory;

(F) Kansas City Plant;

(G) Nevada Test Site;

(H) New Brunswick Laboratory;

(I) Pantex Weapons Facility;

(J) Princeton Plasma Physics Laboratory;

(K) Savannah River Technology Center;

(L) Stanford Linear Accelerator Center;

(M) Thomas Jefferson National Accelerator Facility;

(N) Y–12 facility at Oak Ridge National Laboratory;

(O) Waste Isolation Pilot Plant; or

(P) other similar organization of the Department designated by the Secretary that engages in technology transfer, partnering, or licensing activities.

SEC. 1402. AVAILABILITY OF FUNDS.

Funds authorized to be appropriated to the Department of Energy under title XII, title XIII, and title XV shall remain available until expended.

SEC. 1403. COST SHARING.

(a) RESEARCH AND DEVELOPMENT.—For research and development projects funded from appropriations authorized under subtitles A through D of title XII, the Secretary shall require a commitment from non-federal sources of at least 20 percent of the cost of the project. The Secretary may reduce or eliminate the non-Federal requirement under this subsection if the Secretary determines that the research and development is of a basic or fundamental nature.

(b) DEMONSTRATION AND DEPLOYMENT.—For demonstration and technology deployment activities funded from appropriations authorized under subtitles A through D of title XII, the Secretary shall require a commitment from non-federal sources of at least 50 percent of the costs of the project directly and specifically related to any demonstration or technology deployment activity. The Secretary may reduce or eliminate the non-federal requirement under this subsection if the Secretary determines that the reduction is necessary and appropriate considering the technological risks involved in the project and is necessary to meet one or more goals of this title.

(c) CALCULATION OF AMOUNT.—In calculating the amount of the non-Federal commitment under subsection (a) or (b), the Secretary shall include cash, personnel, services, equipment, and other resources.

SEC. 1404. MERIT REVIEW OF PROPOSALS.

Awards of funds authorized under title XII, subtitle A of title XIII, and title XV shall be made only after an independent review of the scientific and technical merit of the proposals for such awards has been made by the Department of Energy.

SEC. 1405. EXTERNAL TECHNICAL REVIEW OF DEPARTMENTAL PROGRAMS.

(a) NATIONAL ENERGY RESEARCH AND DEVELOPMENT ADVISORY BOARDS.—(1) The Secretary shall establish an advisory board to oversee Department research and development programs in each of the following areas—

(A) energy efficiency;

(B) renewable energy;

(C) fossil energy;

(D) nuclear energy; and

(E) climate change technology, with emphasis on integration, collaboration, and other special features of the cross-cutting technologies supported by the Office of Climate Change Technology.

(2) The Secretary may designate an existing advisory board within the Department to fulfill the responsibilities of an advisory board under this subsection, or may enter into appropriate arrangements with the National Academy of Sciences to establish such an advisory board.

(b) UTILIZATION OF EXISTING COMMITTEES.—The Secretary of Energy shall continue to use the scientific program advisory committees chartered under the Federal Advisory Committee Act by the Office of Science to oversee research and development programs under that Office.

(c) MEMBERSHIP.—Each advisory board under this section shall consist of experts drawn from industry, academia, federal laboratories, research institutions, or state, local, or tribal governments, as appropriate.

(d) MEETINGS AND PURPOSES.—Each advisory board under this section shall meet at least semi-annually to review and advise on the progress made by the respective research, development, demonstration, and technology deployment program. The advisory board shall also review the adequacy and relevance of the goals established for each program by Congress and the President, and may otherwise advise on promising future directions in research and development that should be considered by each program.

SEC. 1406. IMPROVED COORDINATION AND MANAGEMENT OF CIVILIAN SCIENCE AND TECHNOLOGY PROGRAMS.

(a) EFFECTIVE TOP-LEVEL COORDINATION OF RESEARCH AND DEVELOPMENT PROGRAMS.—Section 202(b) of the Department of Energy Organization Act (42 U.S.C. 7132(b)) is amended to read as follows:

''(b)(1) There shall be in the Department an Under Secretary for Energy and Science, who shall be appointed by the President, by and with the advice and consent of the Senate. The Under Secretary shall be compensated at the rate provided for at level III of the Executive Schedule under section 5314 of title 5, United States Code.

''(2) The Under Secretary for Energy and Science shall be appointed from among persons who—

''(A) have extensive background in scientific or engineering fields; and

''(B) are well qualified to manage the civilian research and development programs of the Department of Energy.

''(3) The Under Secretary for Energy and Science shall—

''(A) serve as the Science and Technology Advisor to the Secretary;

''(B) monitor the Department's research and development programs in order to advise the Secretary with respect to any undesirable duplication or gaps in such programs;

''(C) advise the Secretary with respect to the well-being and management of the multipurpose laboratories under the jurisdiction of the Department;

''(D) advise the Secretary with respect to education and training activities required for effective short- and long-term basic and applied research activities of the Department;

''(E) advise the Secretary with respect to grants and other forms of financial assistance required for effective short- and long-term basic and applied research activities of the Department; and

''(F) exercise authority and responsibility over Assistant Secretaries carrying out energy research and development and energy technology functions under sections 203 and 209, as well as other elements of the Department assigned by the Secretary.

(b) RECONFIGURATION OF POSITION OF DIRECTOR OF THE OFFICE OF SCIENCE.—Section 209 of the Department of Energy Organization Act (41 U.S.C. 7139) is amended to read as follows—

''(a) There shall be within the Department an Office of Science, to be headed by an Assistant Secretary of Science, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.

''(b) The Assistant Secretary of Science shall be in addition to the Assistant Secretaries provided for under section 203 of this Act.

''(c) It shall be the duty and responsibility of the Assistant Secretary of Science to carry out the fundamental science and engineering research functions of the Department, including the responsibility for policy and management of such research, as well as other functions vested in the Secretary which he may assign to the Assistant Secretary.''.

(c) ADDITIONAL ASSISTANT SECRETARY POSITION TO ENABLE IMPROVED MANAGEMENT OF NUCLEAR ENERGY ISSUES.—

(1) Section 203(a) of the Department of Energy Organization Act (42 U.S.C. 7133(a)) is amended by striking ''There shall be in the Department six Assistant Secretaries'' and inserting ''Except as provided in section 209, there shall be in the Department seven Assistant Secretaries''.

(2) It is the Sense of the Senate that the leadership for departmental missions in nuclear energy should be at the Assistant Secretary level.

(d) TECHNICAL AND CONFORMING AMENDMENTS.—

(1) Section 202 of the Department of Energy Organization Act (42 U.S.C. 7132) is further amended by adding the following at the end:

''(d) There shall be in the Department an Under Secretary, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall perform such functions and duties as the Secretary shall prescribe, consistent with this section. The Under Secretary shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

''(e) There shall be in the Department a General Counsel, who shall be appointed by the President, by and with the advice and consent of the Senate. The General Counsel shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.''.

(2) Section 5314 of title 5, United States Code, is amended by striking ''Under Secretaries of Energy (2)'' and inserting ''Under Secretaries of Energy (3)''.

(3) Section 5315 of title 5, United States Code, is amended by—

(A) striking ''Director, Office of Science, Department of Energy.''; and

(B) striking ''Assistant Secretaries of Energy (6)'' and inserting ''Assistant Secretaries of Energy (8)''.

(4) The table of contents for the Department of Energy Organization Act (42 U.S.C. 7101 note) is amended—

(A) by striking ''Section 209'' and inserting ''Sec. 209'';

(B) by striking ''213.'' and inserting ''Sec. 213'';

(C) by striking ''214.'' and inserting ''Sec. 214.'';

(D) by striking ''215.'' and inserting ''Sec. 215.''; and

(E) by striking ''216.'' and inserting ''Sec. 216.''.

SEC. 1407. IMPROVED COORDINATION OF TECHNOLOGY TRANSFER ACTIVITIES.

(a) TECHNOLOGY TRANSFER COORDINATOR.—The Secretary shall appoint a Technology Transfer Coordinator to perform oversight of and policy development for technology transfer activities at the Department. The Technology Transfer Coordinator shall coordinate the activities of the Technology Partnerships Working Group, and shall oversee the expenditure of funds allocated to the Technology Partnership Working Group.

(b) TECHNOLOGY PARTNERSHIP WORKING GROUP.—The Secretary shall establish a Technology Partnership Working Group, which shall consist of representatives of the National Laboratories and single-purpose research facilities, to—

(1) coordinate technology transfer activities occurring at National Laboratories and single-purpose research facilities;

(2) exchange information about technology transfer practices; and

(3) develop and disseminate to the public and prospective technology partners information about opportunities and procedures for technology transfer with the Department.

SEC 1408. TECHNOLOGY INFRASTRUCTURE PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish a Technology Infrastructure Program in accordance with this section.

(b) PURPOSE.—The purpose of the Technology Infrastructure Program shall be to improve the ability of National Laboratories or single-purpose research facilities to support departmental missions by—

(1) stimulating the development of technology clusters that can support departmental missions at the National Laboratories or single-purpose research facilities;

(2) improving the ability of National Laboratories or single-purpose research facilities to leverage and benefit from commercial research, technology, products, processes, and services; and

(3) encouraging the exchange of scientific and technological expertise between National Laboratories or single-purpose research facilities and—

(A) institutions of higher education,

(B) technology-related business concerns,

(C) nonprofit institutions, and

(D) agencies of State, tribal, or local governments,

that can support departmental missions at the National Laboratories and single-purpose research facilities.

(c) PROJECTS.—The Secretary shall authorize the Director of each National Laboratory or facility to implement the Technology Infrastructure Program at such National Laboratory or single-purpose research facility through projects that meet the requirements of subsections (d) and (e).

(d) PROGRAM REQUIREMENTS.—Each project funded under this section shall meet the following requirements:

(1) MINIMUM PARTICIPANTS.—Each project shall at a minimum include—

(A) a National Laboratory or single-purpose research facility; and

(B) one of the following entities—

(i) a business,

(ii) an institution of higher education,

(iii) a nonprofit institution, or

(iv) an agency of a State, local, or tribal government.

(2) COST SHARING.—

(A) MINIMUM AMOUNT.—Not less than 50 percent of the costs of each project funded under this section shall be provided from non-Federal sources.

(B) QUALIFIED FUNDING AND RESOURCES.—(i) The calculation of costs paid by the non-Federal sources to a project shall include cash, personnel, services, equipment, and other resources expended on the project.

(ii) Independent research and development expenses of government contractors that qualify for reimbursement under section 31–205–18(e) of the Federal Acquisition Regulations issued pursuant to section 25(c)(1) of the Office of Federal Procurement Policy Act (41 U.S.C. 421(c)(1)) may be credited towards costs paid by non-Federal sources to a project, if the expenses meet the other requirements of this section.

(iii) No funds or other resources expended either before the start of a project under this

section or outside the project's scope of work shall be credited toward the costs paid by the non-Federal sources to the project.

(3) COMPETITIVE SELECTION.—All projects in which a party other than the Department, a National Laboratory, or a single-purpose research facility receives funding under this section shall, to the extent practicable, be competitively selected by the National Laboratory or facility using procedures determined to be appropriate by the Secretary.

(4) ACCOUNTING STANDARDS.—Any participant that receives funds under this section, other than a National Laboratory or single-purpose research facility, may use generally accepted accounting principles for maintaining accounts, books, and records relating to the project.

(5) LIMITATIONS.—No Federal funds shall be made available under this section for—

(A) construction; or

(B) any project for more than five years.

(e) SELECTION CRITERIA.—

(1) THRESHOLD FUNDING CRITERIA.—The Secretary shall allocate funds under this section only if the Director of the National Laboratory or single-purpose research facility managing the project determines that the project is likely to improve the ability of the National Laboratory or single-purpose research facility to achieve technical success in meeting departmental missions.

(2) ADDITIONAL CRITERIA.—The Secretary shall require the Director of the National Laboratory or single-purpose research facility managing a project under this section to consider the following criteria in selecting a project to receive Federal funds—

(A) the potential of the project to succeed, based on its technical merit, team members, management approach, resources, and project plan;

(B) the potential of the project to promote the development of a commercially sustainable technology cluster, which will derive most of the demand for its products or services from the private sector, and which will support departmental missions at the participating National Laboratory or single-purpose research facility;

(C) the potential of the project to promote the use of commercial research, technology, products, processes, and services by the participating National Laboratory or single-purpose research facility to achieve its departmental mission or the commercial development of technological innovations made at the participating National Laboratory or single-purpose research facility;

(D) the commitment shown by non-Federal organizations to the project, based primarily on the nature and amount of the financial and other resources they will risk on the project;

(E) the extent to which the project involves a wide variety and number of institutions of higher education, nonprofit institutions, and technology-related business concerns that can support the missions of the participating National Laboratory or single-purpose research facility and that will make substantive contributions to achieving the goals of the project;

(F) the extent of participation in the project by agencies of State, tribal, or local governments that will make substantive contributions to achieving the goals of the project;

(G) the extent to which the project focuses on promoting the development of technology-related business concerns that are small business concerns or involves such small business concerns substantively in the project; and

(H) such other criteria as the Secretary determines to be appropriate.

(f) REPORT TO CONGRESS.—Not later than January 1, 2004, the Secretary shall report to Congress on whether the Technology Infrastructure Program should be continued and, if so, how the program should be managed.

(g) DEFINITIONS.—In this section:

(1) TECHNOLOGY CLUSTER.—The term ''technology cluster'' means a concentration of—

(A) technology-related business concerns;

(B) institutions of higher education; or

(C) other nonprofit institutions,

that reinforce each other's performance in the areas of technology development through formal or informal relationships.

(2) TECHNOLOGY-RELATED BUSINESS CONCERN.—The term ''technology-related business concern'' means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(A) conducts scientific or engineering research,

(B) develops new technologies,

(C) manufacturer's products based on new technologies, or

(D) performs technological services.

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for activities under this section $10,000,000 for each of fiscal years 2003 and 2004.

SEC. 1409. SMALL BUSINESS ADVOCACY AND ASSISTANCE.

(a) SMALL BUSINESS ADVOCATE.—The Secretary shall require the Director of each National Laboratory, and may require the Director of a single-purpose research facility, to appoint a small business advocate to—

(1) increase the participation of small business concerns, including socially and economically disadvantaged small business concerns, in procurement, collaborative research, technology licensing, and technology transfer activities conducted by the National Laboratory or single-purpose research facility;

(2) report to the Director of the National Laboratory or single-purpose research facility on the actual participation of small business concerns in procurement and collaborative research along with recommendations, if appropriate, on how to improve participation;

(3) make available to small business concerns training, mentoring, and clear, up-to-date information on how to participate in the procurement and collaborative research, including how to submit effective proposals;

(4) increase the awareness inside the National Laboratory or single-purpose research facility of the capabilities and opportunities presented by small business concerns; and

(5) establish guidelines for the program under subsection (b) and report on the effectiveness of such program to the Director of the National Laboratory or single-purpose research facility.

(b) ESTABLISHMENT OF SMALL BUSINESS ASSISTANCE PROGRAM.—The Secretary shall require the Director of each National Laboratory, and may require the director of a single-purpose research facility, to establish a program to provide small business concerns—

(1) assistance directed at making them more effective and efficient subcontractors or suppliers to the National Laboratory or single-purpose research facility; or

(2) general technical assistance, the cost of which shall not exceed $10,000 per instance of assistance, to improve the small business concern's products or services.

(c) USE OF FUNDS.—None of the funds expended under subsection (b) may be used for direct grants to the small business concerns.

(d) DEFINITIONS.—In this section:

(1) SMALL BUSINESS CONCERN.—The term ''small business concern'' has the meaning given such term in section 3 of the Small Business Act (15 U.S.C. 632).

(2) SOCIALLY AND ECONOMICALLY DISADVANTAGED SMALL BUSINESS CONCERNS.—The term ''socially and economically disadvantaged small business concerns'' has the meaning given such term in section 8(a)(4) of the Small Business Act (15 U.S.C. 637(a)(4)).

SEC. 1410. OTHER TRANSACTIONS.

(a) IN GENERAL.—Section 646 of the Department of Energy Organization Act (42 U.S.C. 7256) is amended by adding at the end the following:

''(g) OTHER TRANSACTIONS AUTHORITY.—(1) In addition to other authorities granted to the Secretary to enter into procurement contracts, leases, cooperative agreements, grants, and other similar arrangements, the Secretary may enter into other transactions with public agencies, private organizations, or persons on such terms as the Secretary may deem appropriate in furtherance of basic, applied, and advanced research functions now or hereafter vested in the Secretary. Such other transactions shall not be subject to the provisions of section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908).

''(2)(A) The Secretary of Energy shall ensure that—

''(i) to the maximum extent practicable, no transaction entered into under paragraph (1) provides for research that duplicates research being conducted under existing programs carried out by the Department of Energy; and

''(ii) to the extent that the Secretary determines practicable, the funds provided by the Government under a transaction authorized by paragraph (1) do not exceed the total amount provided by other parties to the transaction.

''(B) A transaction authorized by paragraph (1) may be used for a research project when the use of a standard contract, grant, or cooperative agreement for such project is not feasible or appropriate.

''(3)(A) The Secretary shall not disclose any trade secret or commercial or financial information submitted by a non-Federal entity under paragraph (1) that is privileged and confidential.

''(B) The Secretary shall not disclose, for five years after the date the information is received, any other information submitted by a non-Federal entity under paragraph (1), including any proposal, proposal abstract, document supporting a proposal, business plan, or technical information that is privileged and confidential.

''(C) The Secretary may protect from disclosure, for up to five years, any information developed pursuant to a transaction under paragraph (1) that would be protected from disclosure under section 552(b)(4) of title 5, United States Code, if obtained from a person other than a Federal agency.''.

(b) IMPLEMENTATION.—Not later than six months after the date of enactment of this section, the Department shall establish guidelines for the use of other transactions.

SEC. 1411. MOBILITY OF SCIENTIFIC AND TECHNICAL PERSONNEL.

Not later than two years after the enactment of this section, the Secretary, acting through the Technology Transfer Coordinator under section 1407, shall determine whether each contractor operating a National Laboratory or single-purpose research facility has policies and procedures that do not create disincentives to the transfer of scientific and technical personnel among the contractor-operated National Laboratories or contractor-operated single-purpose research facilities.

SEC. 1412. NATIONAL ACADEMY OF SCIENCES REPORT.

Within 90 days after the date of enactment of this Act, the Secretary shall contract with the National Academy of Sciences to—

(1) conduct a study on the obstacles to accelerating the innovation cycle for energy technology, and

(2) report to the Congress recommendations for shortening the cycle of research, development, and deployment.

SEC. 1413. REPORT ON TECHNOLOGY READINESS AND BARRIERS TO TECHNOLOGY TRANSFER.

(a) IN GENERAL.—The Secretary, acting through the Technology Partnership Working Group and in consultation with representatives of affected industries, universities, and small business concerns, shall—

(1) assess the readiness for technology transfer of energy technologies developed through projects funded from appropriations authorized under subtitles A through D of title XIV, and

(2) identify barriers to technology transfer and cooperative research and development agreements between the Department or a National Laboratory and a non- federal person; and

(3) make recommendations for administrative or legislative actions needed to reduce or eliminate such barriers.

(b) REPORT.—The Secretary provide a report to Congress and the President on activities carried out under this section not later than one year after the date of enactment of this section, and shall update such report on a biennial basis, taking into account progress toward eliminating barriers to technology transfer identified in previous reports under this section.

TITLE XV—PERSONNEL AND TRAINING

SEC. 1501. WORKFORCE TRENDS AND TRAINEESHIP GRANTS.

(a) WORKFORCE TRENDS.—

(1) MONITORING.—The Secretary of Energy (in this title referred to as the ''Secretary''), acting through the Administrator of the Energy Information Administration, in consultation with the Secretary of Labor, shall monitor trends in the workforce of skilled technical personnel supporting energy technology industries, including renewable energy industries, companies developing and commercializing devices to increase energy-efficiency, the oil and gas industry, nuclear power industry, the coal industry, and other industrial sectors as the Secretary may deem appropriate.

(2) ANNUAL REPORTS.—The Administrator of the Energy Information Administration shall include statistics on energy industry workforce trends in the annual reports of the Energy Information Administration.

(3) SPECIAL REPORTS.—The Secretary shall report to the appropriate committees of Congress whenever the Secretary determines that significant shortfalls of technical personnel in one or more energy industry segments are forecast or have occurred.

(b) TRAINEESHIP GRANTS FOR TECHNICALLY SKILLED PERSONNEL.—

(1) GRANT PROGRAMS.—The Secretary shall establish grant programs in the appropriate offices of the Department to enhance training of technically skilled personnel for which a shortfall is determined under subsection (a).

(2) ELIGIBLE INSTITUTIONS.—As determined by the Secretary to be appropriate to the particular workforce shortfall, the Secretary shall make grants under paragraph (1) to—

(A) an institution of higher education;

(B) a postsecondary educational institution providing vocational and technical education (within the meaning given those terms in section 3 of the Carl D. Perkins Vocational and Technical Education Act of 1998 (20 U.S.C. 2302));

(C) appropriate agencies of State, local, or tribal governments; or

(D) joint labor and management training organizations with state or federally recognized apprenticeship programs and other employee-based training organizations as the Secretary considers appropriate.

(c) DEFINITION.—For purposes of this section, the term ''skilled technical personnel'' means journey and apprentice level workers who are enrolled in or have completed a state or federally recognized apprenticeship program and other skilled workers in energy technology industries.

(d) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as may be necessary for each fiscal year.

SEC. 1502. POSTDOCTORAL AND SENIOR RESEARCH FELLOWSHIPS IN ENERGY RESEARCH.

(a) POSTDOCTORAL FELLOWSHIPS.—The Secretary shall establish a program of fellowships to encourage outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development at institutions of higher education of their choice. In establishing a program under this subsection, the Secretary may enter into appropriate arrangements with the National Academy of Sciences to help administer the program.

(b) DISTINGUISHED SENIOR RESEARCH FELLOWSHIPS.—The Secretary shall establish a program of fellowships to allow outstanding senior researchers in energy research and development and their research groups to explore research and development topics of their choosing for a fixed period of time. Awards under this program shall be made on the basis of past scientific or technical accomplishment and promise for continued accomplishment during the period of support, which shall not be less than 3 years.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as may be necessary for each fiscal year.

SEC. 1503. TRAINING GUIDELINES FOR ELECTRIC ENERGY INDUSTRY PERSONNEL.

(a) MODEL GUIDELINES.—The Secretary shall, in cooperation with electric generation, transmission, and distribution companies and recognized representatives of employees of those entities, develop model employee training guidelines to support electric supply system reliability and safety.

(b) CONTENT OF GUIDELINES.—The guidelines under this section shall include—

(1) requirements for worker training, competency, and certification, developed using criteria set forth by the Utility Industry Group recognized by the National Skill Standards Board; and

(2) consolidation of existing guidelines on the construction, operation, maintenance, and inspection of electric supply generation, transmission and distribution facilities such as those established by the National Electric Safety Code and other industry consensus standards.

SEC. 1504. NATIONAL CENTER ON ENERGY MANAGEMENT AND BUILDING TECHNOLOGIES.

The Secretary shall establish a National Center on Energy Management and Building Technologies, to carry out research, education, and training activities to facilitate the improvement of energy efficiency and indoor air quality in industrial, commercial and residential buildings. The National Center shall be established in cooperation with—

(1) recognized representatives of employees in the heating, ventilation, and air conditioning industry;

(2) contractors that install and maintain heating, ventilation and air conditioning systems and equipment;

(3) manufacturers of heating, ventilation and air-conditioning systems and equipment;

(4) representatives of the advanced building envelope industry, including design, windows, lighting, and insulation industries; and

(5) other entities as appropriate.

SEC. 1505. IMPROVED ACCESS TO ENERGY-RELATED SCIENTIFIC AND TECHNICAL CAREERS.

(a) DEPARTMENT OF ENERGY SCIENCE EDUCATION PROGRAMS.—Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended by adding at the end the following:

''(c) PROGRAMS FOR WOMEN AND MINORITY STUDENTS.—In carrying out a program under subsection (a), the Secretary shall give priority to activities that are designed to encourage women and minority students to pursue scientific and technical careers.''.

(b) PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING INSTITUTIONS, AND TRIBAL COLLEGES.—The Department of Energy Science Education Enhancement Act (42 U.S.C. 7381 et seq.) is amended—

(1) by redesignating sections 3167 and 3168 as sections 3168 and 3169, respectively; and

(2) by inserting after section 3166 the following:

''SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-SERVING INSTITUTIONS, AND TRIBAL COLLEGES.

''(a) DEFINITIONS.—In this section:

''(1) HISPANIC-SERVING INSTITUTION.—The term 'Hispanic-serving institution' has the meaning given the term in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)).

''(2) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term 'historically Black college or university' has the meaning given the term 'part B institution' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

''(3) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given the term in section 1203 of the Energy Science and Technology Enhancement Act of 2002.

''(4) SCIENCE FACILITY.—The term 'science facility' has the meaning given the term 'single-purpose research facility' in section 1401 of the Energy Science and Technology Enhancement Act of 2002.

''(5) TRIBAL COLLEGE.—The term 'tribal college' has the meaning given the term 'tribally controlled college or university' in section 2(a) of the Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C. 1801(a)).

''(b) EDUCATION PARTNERSHIP.—

''(1) IN GENERAL.—The Secretary shall direct the Director of each National Laboratory, and may direct the head of any science facility, to increase the participation of historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges in activities that increase the capacity of the historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges to train personnel in science or engineering.

''(2) ACTIVITIES.—An activity under paragraph (1) may include—

''(A) collaborative research;

''(B) a transfer of equipment;

''(C) training of personnel at a National Laboratory or science facility; and

''(D) a mentoring activity by personnel at a National Laboratory or science facility.

''(c) REPORT.—Not later than 2 years after the date of enactment of this section, the Secretary shall submit to the Committee on Science of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the activities carried out under this section.''.

DIVISION F—TECHNOLOGY ASSESSMENT AND STUDIES

TITLE XVI—TECHNOLOGY ASSESSMENT

SEC. 1601. NATIONAL SCIENCE AND TECHNOLOGY ASSESSMENT SERVICE.

The National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.) is amended by adding at the end the following:

"TITLE VII—NATIONAL SCIENCE AND TECHNOLOGY ASSESSMENT SERVICE

"SEC. 701. ESTABLISHMENT.

''There is hereby created a Science and Technology Assessment Service (hereinafter referred to as the 'Service'), which shall be within and responsible to the legislative branch of the Government.

"SEC. 702. COMPOSITION.

''The Service shall consist of a Science and Technology Board (hereinafter referred to as the 'Board') which shall formulate and promulgate the policies of the Service, and a Director who shall carry out such policies and administer the operations of the Service.

"SEC. 703. FUNCTIONS AND DUTIES.

''The Service shall coordinate and develop information for Congress relating to the uses and application of technology to address current national science and technology policy issues. In developing such technical assessments for Congress, the Service shall utilize, to the extent practicable, experts selected in coordination with the National Research Council.

"SEC. 704. INITIATION OF ACTIVITIES.

''Science and technology assessment activities undertaken by the Service may be initiated upon the request of—

''(1) the Chairman of any standing, special, or select committee of either House of the Congress, or of any joint committee of the Congress, acting for himself or at the request of the ranking minority member or a majority of the committee members;

''(2) the Board; or

''(3) the Director.

"SEC. 705. ADMINISTRATION AND SUPPORT.

''The Director of the Science and Technology Assessment Service shall be appointed by the Board and shall serve for a term of 6 years unless sooner removed by the Board. The Director shall receive basic pay at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code. The Director shall contract for administrative support from the Library of Congress.

"SEC. 706. AUTHORITY.

''The Service shall have the authority, within the limits of available appropriations, to do all things necessary to carry out the provisions of this section, including, but without being limited to, the authority to—

''(1) make full use of competent personnel and organizations outside the Office, public or private, and form special ad hoc task forces or make other arrangements when appropriate;

''(2) enter into contracts or other arrangements as may be necessary for the conduct of the work of the Office with any agency or instrumentality of the United States, with any State, territory, or possession or any political subdivision thereof, or with any person, firm, association, corporation, or educational institution, with or without reimbursement, without performance or other bonds, and without regard to section 3709 of the Revised Statutes (41 U.S.C. 51);

''(3) accept and utilize the services of voluntary and uncompensated personnel necessary for the conduct of the work of the Service and provide transportation and subsistence as authorized by section 5703 of title 5, United States Code, for persons serving without compensation; and

''(4) prescribe such rules and regulations as it deems necessary governing the operation and organization of the Service.

"SEC. 707. BOARD.

''The Board shall consist of 13 members as follows—

''(1) 6 Members of the Senate, appointed by the President pro tempore of the Senate, 3 from the majority party and 3 from the minority party;

''(2) 6 Members of the House of Representatives appointed by the Speaker of the House of Representatives, 3 from the majority party and 3 from the minority party; and

''(3) the Director, who shall not be a voting member.

"SEC. 708. REPORT TO CONGRESS.

''The Service shall submit to the Congress an annual report which shall include, but not be limited to, an evaluation of technology assessment techniques and identification, insofar as may be feasible, of technological areas and programs requiring future analysis. The annual report shall be submitted not later than March 15 of each year.

"SEC. 709. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Service such sums as are necessary to fulfill the requirements of this title.''.

TITLE XVII—STUDIES

SEC. 1701. REGULATORY REVIEWS.

(a) REGULATORY REVIEWS.—Not later than one year after the date of enactment of this section and every five years thereafter, each Federal agency shall review relevant regulations and standards to identify—

(1) existing regulations and standards that act as barriers to—

(A) market entry for emerging energy technologies (including fuel cells, combined heat and power, distributed power generation, and small-scale renewable energy), and

(B) market development and expansion for existing energy technologies (including combined heat and power, small-scale renewable energy, and energy recovery in industrial processes), and

(2) actions the agency is taking or could take to—

(A) remove barriers to market entry for emerging energy technologies and to market expansion for existing technologies,

(B) increase energy efficiency and conservation, or

(C) encourage the use of new and existing processes to meet energy and environmental goals.

(b) REPORT TO CONGRESS.—Not later than 18 months after the date of enactment of this section, and every five years thereafter, the Director of the Office of Science and Technology Policy shall report to the Congress on the results of the agency reviews conducted under subsection (a).

(c) CONTENTS OF THE REPORT.—The report shall—

(1) identify all regulatory barriers to—

(A) the development and commercialization of emerging energy technologies and processes, and

(B) the further development and expansion of existing energy conservation technologies and processes,

(2) actions taken, or proposed to be taken, to remove such barriers, and

(3) recommendations for changes in laws or regulations that may be needed to—

(A) expedite the siting and development of energy production and distribution facilities,

(B) encourage the adoption of energy efficiency and process improvements,

(C) facilitate the expanded use of existing energy conservation technologies, and

(D) reduce the environmental impacts of energy facilities and processes through transparent and flexible compliance methods.

SEC. 1702. ASSESSMENT OF DEPENDENCE OF HAWAII ON OIL.

(a) STUDY.—Not later than 60 days after the enactment of this Act, the Secretary of Energy shall initiate a study that assesses the economic risk posed by the dependence of Hawaii on oil as the principal source of energy.

(b) SCOPE OF THE STUDY.—The Secretary shall assess—

(1) the short- and long-term threats to the economy of Hawaii posed by insecure supply and volatile prices;

(2) the impact on availability and cost of refined petroleum products if oil-fired electric generation is displaced by other sources;

(3) the feasibility of increasing the contribution of renewable sources to the overall energy requirements of Hawaii; and

(4) the feasibility of using liquid natural gas as a source of energy to supplement oil.

(c) REPORT.—Not later than 300 days after the date of enactment of this section, the Secretary shall prepare, in consultation with appropriate agencies of the State of Hawaii, industry representatives, and citizen groups, and shall submit to Congress a report detailing the Secretary's findings, conclusions, and recommendations. The report shall include—

(1) a detailed analysis of the availability, economics, infrastructure needs, and recommendations to increase the contribution of renewable energy sources to the overall energy requirements of Hawaii; and

(2) a detailed analysis of the use of liquid natural gas, including—

(A) the availability of supply,

(B) economics,

(C) environmental and safety considerations,

(D) technical limitations,

(E) infrastructure and transportation requirements, and

(F) siting and facility configurations, including—

(i) onshore and offshore alternatives, and

(ii) environmental and safety considerations of both onshore and offshore alternatives.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy such sums as may be necessary to carry out the purposes of this section.

SEC. 1703. STUDY OF SITING AN ELECTRIC TRANSMISSION SYSTEM ON AMTRAK RIGHT-OF-WAY.

(a) STUDY.—The Secretary of Energy shall contract with Amtrak to conduct a study of the feasibility of building and operating a new electric transmission system on the Amtrak right-of-way in the Northeast Corridor.

(b) SCOPE OF THE STUDY.—The study shall focus on siting the new system on the Amtrak right-of-way within the Northeastern Corridor between Washington, D.C., and New Rochelle, New York, including the Amtrak right-of-way between Philadelphia, Pennsylvania and Harrisburg, Pennsylvania.

(c) CONTENTS OF THE STUDY.—The study shall consider—

(1) alternative geographic configuration of a new electronic transmission system on the Amtrak right-of-way;

(2) alternative technologies for the system;

(3) the estimated costs of building and operating each alternative;

(4) alternative means of financing the system;

(5) the environmental risks and benefits of building and operating each alternative as well as environmental risks and benefits of building and operating the system on the Northeast Corridor rather than at other locations;

(6) engineering and technological obstacles to building and operating each alternative; and

(7) the extent to which each alternative would enhance the reliability of the electric transmission grid and enhance competition in the sale of electric energy at wholesale within the Northeast Corridor.

(d) RECOMMENDATIONS.—The study shall recommend the optimal geographic configuration, the optimal technology, the optimal engineering design, and the optimal means of financing for the new system from among the alternatives considered.

(e) REPORT.—The Secretary of Energy shall submit the completed study to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Energy and Commerce of the House of Representatives not later than 270 days after the date of enactment of this section.

(f) DEFINITIONS.—For purposes of this section—

(1) the term ''Amtrak'' means the National Railroad Passenger Corporation established under chapter 243 of title 49, United States Code; and

(2) the term ''Northeast Corridor'' shall have the meaning given such term under section 24102(7) of title 49, United States Code.

DIVISION G—ENERGY INFRASTRUCTURE SECURITY

TITLE XVIII—CRITICAL ENERGY INFRASTRUCTURE

Subtitle A—Department of Energy Programs

SEC. 1801. DEFINITIONS.

In this title:

(1) CRITICAL ENERGY INFRASTRUCTURE.—

(A) IN GENERAL.—The term ''critical energy infrastructure'' means a physical or cyber-based system or service for—

(i) the generation, transmission, or distribution of electric energy; or

(ii) the production, refining, or storage of petroleum, natural gas, or petroleum product—

the incapacity or destruction of which would have a debilitating impact on the defense or economic security of the United States.

(B) EXCLUSION.—The term shall not include a facility that is licensed by the Nuclear Regulatory Commission under section 103 or 104 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2133 and 2134(b)).

(2) DEPARTMENT; NATIONAL LABORATORY; SECRETARY.—The terms ''Department'', ''National Laboratory'', and ''Secretary'' have the meaning given such terms in section 1203.

SEC. 1802. ROLE OF THE DEPARTMENT OF ENERGY.

Section 102 of the Department of Energy Organization Act (42 U.S.C. 7112) is amended by adding at the end the following:

''(20) To ensure the safety, reliability, and security of the nation's energy infrastructure, and to respond to any threat to or disruption of such infrastructure, through activities including—

''(A) research and development;

''(B) financial assistance, technical assistance, and cooperative activities with States, industry, and other interested parties; and

''(C) education and public outreach activities.''.

SEC. 1803. CRITICAL ENERGY INFRASTRUCTURE PROGRAMS.

(a) PROGRAMS.—In addition to the authorities otherwise provided by law (including section 1261), the Secretary is authorized to establish programs of financial, technical, or administrative assistance to—

(1) enhance the security of critical energy infrastructure in the United States;

(2) develop and disseminate, in cooperation with industry, best practices for critical energy infrastructure assurance; and

(3) protect against, mitigate the effect of, and improve the ability to recover from disruptive incidents affecting critical energy infrastructure.

(b) REQUIREMENTS.—A program established under this section shall—

(1) be undertaken in consultation with the advisory committee established under section 1804;

(2) have available to it the scientific and technical resources of the Department, including resources at a National Laboratory; and

(3) be consistent with any overall Federal plan for national infrastructure security developed by the President or his designee.

SEC. 1804. ADVISORY COMMITTEE ON ENERGY INFRASTRUCTURE SECURITY.

(a) ESTABLISHMENT.—The Secretary shall establish an advisory committee, or utilize an existing advisory committee within the Department, to advise the Secretary on policies and programs related to the security of U.S. energy infrastructure.

(b) BALANCED MEMBERSHIP.—The Secretary shall ensure that the advisory committee established or utilized under subsection (a) has a membership with an appropriate balance among the various interests related to energy infrastructure security, including—

(1) scientific and technical experts;

(2) industrial managers;

(3) worker representatives;

(4) insurance companies or organizations;

(5) environmental organizations;

(6) representatives of State, local, and tribal governments; and

(7) such other interests as the Secretary may deem appropriate.

(c) EXPENSES.—Members of the advisory committee established or utilized under subsection (a) shall serve without compensation, and shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the committee.

SEC. 1805. BEST PRACTICES AND STANDARDS FOR ENERGY INFRASTRUCTURE SECURITY.

The Secretary, in consultation with the advisory committee under section 1804, shall enter into appropriate arrangements with one or more standard-setting organizations, or similar organizations, to assist the development of industry best practices and standards for security related to protecting critical energy infrastructure.

Subtitle B—Department of the Interior Programs

SEC. 1811. OUTER CONTINENTAL SHELF ENERGY INFRASTRUCTURE SECURITY.

(a) DEFINITIONS.—In this section:

(1) APPROVED STATE PLAN.—The term ''approved State plan'' means a State plan approved by the Secretary under subsection (c)(3).

(2) COASTLINE.—The term ''coastline'' has the same meaning as the term ''coast line'' as defined in subsection 2(c) of the Submerged Lands Act (43 U.S.C. 1301(c)).

(3) CRITICAL OCS ENERGY INFRASTRUCTURE FACILITY.—The term ''OCS critical energy infrastructure facility'' means—

(A) a facility located in an OCS Production State or in the waters of such State related to the production of oil or gas on the Outer Continental Shelf; or

(B) a related facility located in an OCS Production State or in the waters of such State that carries out a public service, transportation, or infrastructure activity critical to the operation of an Outer Continental Shelf energy infrastructure facility, as determined by the Secretary.

(4) DISTANCE.—The term ''distance'' means the minimum great circle distance, measured in statute miles.

(5) LEASED TRACT.—

(A) IN GENERAL.—The term ''leased tract'' means a tract that—

(i) is subject to a lease under section 6 or 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1335, 1337) for the purpose of drilling for, developing, and producing oil or natural gas resources; and

(ii) consists of a block, a portion of a block, a combination of blocks or portions of blocks, or a combination of portions of blocks, as—

(I) specified in the lease; and

(II) depicted on an outer Continental Shelf official protraction diagram.

(B) EXCLUSION.—The term ''leased tract'' does not include a tract described in subparagraph (A) that is located in a geographic area subject to a leasing moratorium on January 1, 2001, unless the lease was in production on that date.

(6) OCS POLITICAL SUBDIVISION.—The term ''OCS political subdivision'' means a county, parish, borough or any equivalent subdivision of an OCS Production State all or part of which subdivision lies within the coastal zone (as defined in section 304(1) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453(1)).

(7) OCS PRODUCTION STATE.—The term ''OCS Production State'' means the State of—

(A) Alaska;

(B) Alabama;

(C) California;

(D) Florida;

(F) Louisiana;

(G) Mississippi; or

(H) Texas.

(8) PRODUCTION.—The term ''production'' has the meaning given the term in section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. 1331).

(9) PROGRAM.—The term ''program'' means the Outer Continental Shelf Energy Infrastructure Security Program established under subsection (b).

(10) QUALIFIED OUTER CONTINENTAL SHELF REVENUES.—The term ''qualified Outer Continental Shelf revenues'' means all amounts received by the United States from each leased tract or portion of a leased tract lying seaward of the zone defined and governed by section 8(g) of the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.), or lying within such zone but to which section 8(g) does not apply, the geographic center of which lies within a distance of 200 miles from any part of the coastline of any State, including bonus bids, rents, royalties (including payments for royalties taken in kind and sold), net profit share payments, and related late payment interest. Such term does not include any revenues from a leased tract or portion of a leased tract that is included within any area of the Outer Continental Shelf where a moratorium on new leasing was in effect as of January 1, 2001, unless the lease was issued prior to the establishment of the moratorium and was in production on January 1, 2001.

(11) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

(12) STATE PLAN.—The term ''State plan'' means a State plan described in subsection (b).

(b) ESTABLISHMENT.—The Secretary shall establish a program, to be known as the ''Outer Continental Shelf Energy Infrastructure Security Program,'' under which the Secretary shall provide funds to OCS Production States to implement approved State plans to provide security against hostile and

natural threats to critical OCS energy infrastructure facilities and support of any necessary public service or transportation activities that are needed to maintain the safety and operation of critical energy infrastructure activities. For purposes of this program, restoration of any coastal wetland shall be considered to be an activity that secures critical OCS energy infrastructure facilities from a natural threat.

(c) STATE PLANS.—

(1) INITIAL PLAN.—Not later than 180 days after the date of enactment of this Act, to be eligible to receive funds under the program, the Governor of an OCS Production State shall submit to the Secretary a plan to provide security against hostile and natural threats to critical energy infrastructure facilities in the OCS Production State and to support any of the necessary public service or transportation activities that are needed to maintain the safety and operation of critical energy infrastructure facilities. Such plan shall include

(A) the name of the State agency that will have the authority to represent and act for the State in dealing with the Secretary for purposes of this section;

(B) a program for the implementation of the plan which describes how the amounts provided under this section will be used;

(C) a contact for each OCS political subdivision and description of how such political subdivisions will use amounts provided under this section, including a certification by the Governor that such uses are consistent with the requirements of this section; and

(D) Measures for taking into account other relevant Federal resources and programs.

(2) ANNUAL REVIEWS.—Not later than 1 year after the date of submission of the plan and annually thereafter, the Governor of an OCS Production State shall—

(A) review the approved State plan; and

(B) submit to the Secretary any revised State plan resulting from the review.

(3) APPROVAL OF PLANS.—

(A) IN GENERAL.—In consultation with appropriate Federal security officials and the Secretaries of Commerce and Energy, the Secretary shall—

(i) approve each State plan; or

(ii) recommend changes to the State plan.

(B) RESUBMISSION OF STATE PLANS.—If the Secretary recommends changes to a State plan under subparagraph (A)(ii), the Governor of the OCS Production State may resubmit a revised State plan to the Secretary for approval.

(4) AVAILABILITY OF PLANS.—The Secretary shall provide to Congress a copy of each approved State plan.

(5) CONSULTATION AND PUBLIC COMMENT.—

(A) CONSULTATION.—The Governor of an OCS Production State shall develop the State plan in consultation with Federal, State, and local law enforcement and public safety officials, industry, Indian tribes, the scientific community, and other persons as appropriate.

(B) PUBLIC COMMENT.—The Governor of an OCS Production State may solicit public comments on the State plan to the extent that the Governor determines to be appropriate.

(d) ALLOCATION OF AMOUNTS BY THE SECRETARY.—The Secretary shall allocate the amounts made available for the purposes of carrying out the program provided for by this section among OCS Production States as follows:

(1) 25 percent of the amounts shall be divided equally among OCS Production States; and

(2) 75 percent of the amounts shall be divided among OCS Production States on the basis of the proximity of each OCS Production State to offshore locations at which oil and gas are being produced.

(e) CALCULATION.—The amount for each OCS Production State under paragraph (d)(2) shall be calculated based on the ratio of qualified OCS revenues generated off the coastline of the OCS Production State to the qualified OCS revenues generated off the coastlines of all OCS Production States for the prior five-year period. Where there is more than one OCS Production State within 200 miles of a leased tract, the amount of each OCS Production State's payment under paragraph (d)(2) for such leased tract shall be inversely proportional to the distance between the nearest point on the coastline of such State and the geographic center of each leased tract or portion of the leased tract (to the nearest whole mile) that is within 200 miles of that coastline, as determined by the Secretary. A leased tract or portion of a leased tract shall be excluded if the tract or portion is located in a geographic area where a moratorium on new leasing was in effect on January 1, 2001, unless the lease was issued prior to the establishment of the moratorium and was in production on January 1, 2001.

(f) PAYMENTS TO OCS POLITICAL SUBDIVISIONS.—Thirty-five percent of each OCS Production State's allocable share as determined under subsection (e) shall be paid directly to the OCS political subdivisions by the Secretary based on the following formula:

(1) 25 percent shall be allocated based on the ratio of such OCS political subdivision's population to the population of all OCS political subdivisions in the OCS Production State.

(2) 25 percent shall be allocated based on the ratio of such OCS political subdivision's coastline miles to the coastline miles of all OCS political subdivisions in the OCS Production State. For purposes of this subsection, those OCS political subdivisions without coastlines shall be considered to have a coastline that is the average length of the coastlines of all political subdivisions in the state.

(3) 50 percent shall be allocated based on the relative distance of such OCS political subdivision from any leased tract used to calculate that OCS Production State's allocation using ratios that are inversely proportional to the distance between the point in the coastal political subdivision closest to the geographic center of each leased tract or portion, as determined by the Secretary. For purposes of the calculations under this subparagraph, a leased tract or portion of a leased tract shall be excluded if the leased tract or portion is located in a geographic area where a moratorium on new leasing was in effect on January 1, 2001, unless the lease was issued prior to the establishment of the moratorium and was in production on January 1, 2001.

(g) FAILURE TO HAVE PLAN APPROVED.—Any amount allocated to an OCS Production State or OCS political subdivision but not disbursed because of a failure to have an approved Plan under this section shall be allocated equally by the Secretary among all other OCS Production States in a manner consistent with this subsection except that the Secretary shall hold in escrow such amount until the final resolution of any appeal regarding the disapproval of a plan submitted under this section. The Secretary may waive the provisions of this paragraph and hold an OCS Production State's allocable share in escrow if the Secretary determines that such State is making a good faith effort to develop and submit, or update, a Plan.

(h) USE OF AMOUNTS ALLOCATED BY THE SECRETARY.—

(1) IN GENERAL.—Amounts allocated by the Secretary under subsection (d) may be used only in accordance with a plan approved pursuant to subsection (c) for—

(A) activities to secure critical OCS energy infrastructure facilities from human or natural threats; and

(B) support of any necessary public service or transportation activities that are needed to maintain the safety and operation of critical OCS energy infrastructure facilities.

(2) RESTORATION OF COASTAL WETLAND.—For the purpose of subparagraph (1)(A), restoration of any coastal wetland shall be considered to be an activity that secures critical OCS energy infrastructure facilities from a natural threat.

(i) FAILURE TO HAVE USE.—Any amount allocated to an OCS political subdivision but not disbursed because of a failure to have a qualifying use as described in subsection (h) shall be allocated by the Secretary to the OCS Production State in which the OCS political subdivision is located except that the Secretary shall hold in escrow such amount until the final resolution of any appeal regarding the use of the funds.

(j) COMPLIANCE WITH AUTHORIZED USES.—If the Secretary determines that any expenditure made by an OCS Production State or an OCS political subdivision is not consistent with the uses authorized in subsection (h), the Secretary shall not disburse any further amounts under this section to that OCS Production State or OCS political subdivision until the amounts used for the inconsistent expenditure have been repaid or obligated for authorized uses.

(k) RULEMAKING.—The Secretary may promulgate such rules and regulations as may be necessary to carry out the purposes of this section, including rules and regulations setting forth an appropriate process for appeals.

(l) AUTHORIZATION OF APPROPRIATIONS.—There are hereby authorized to be appropriated $450,000,000 for each of the fiscal years 2003 through 2008 to carry out the purposes of this section.

The PRESIDING OFFICER. The Senator from New Mexico.

Mr. BINGAMAN. Madam President, I believe the next order of business is to have the opening statement of the Senator from Alaska. Unless my colleague from Nevada has business to transact, I suggest the absence of a quorum until the Senator from Alaska arrives.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. REID. Madam President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from North Dakota.

Mr. DORGAN. Madam President, I inquire about the order this afternoon. My understanding is the ranking member on the Energy Committee intends to make a presentation. I want to inquire about the opportunity to make an opening statement on the bill. I inquire of the majority whip what the circumstances are.

Mr. REID. If the Senator will yield, the Senator from Alaska is going to speak for approximately an hour—it may last a little longer than that—and thereafter the bill will be open for amendment. Or if the Senator would

like to come back in an hour or so to make his opening statement, that would be entirely appropriate. If the Senator wishes, we could certainly make that in the form of a unanimous consent request that the Senator be allowed to speak on the bill.

Mr. DORGAN. I guess I do not understand whether we are going to go back and forth. If we are, I ask unanimous consent that I might be recognized following whatever time is taken by Senator MURKOWSKI.

Mr. REID. Does the Senator from North Dakota have some idea as to how long he wishes to speak?

Mr. DORGAN. Perhaps 20 minutes or so. I do not know what order has been established, if any.

Mr. REID. There has been no order established.

Mr. DORGAN. I ask unanimous consent that I might be recognized following the opening presentation by Senator MURKOWSKI.

The PRESIDING OFFICER. Is there objection?

Mr. DOMENICI. Reserving the right to object.

Mr. MURKOWSKI. Reserving the right to object.

The PRESIDING OFFICER. The Senator from Alaska.

Mr. MURKOWSKI. I do not intend to object. I propose we go back and forth on opening statements and, following that, pretty much on amendments on the basis of Members coming to the floor and being recognized.

Mr. REID. The Senator from North Dakota still has the floor, but I think it would be very good if we could get the opening statements out of the way as soon as we could—not limiting anybody as to how long they speak. If it takes into the evening, fine. We are just getting started. I am not trying in any way to limit the length of the opening statements on this bill. But I think it would be good if we could get those out of the way now and move to the amendment process as soon as possible.

Mr. MURKOWSKI. Reserving the right to object, and I shall not, I think that is an appropriate procedure, if Members want to work out among themselves a time agreement or discuss it, but I don't think any Members should be limited to a time agreement on an opening statement at this time.

Mr. REID. I note the Senator from New Mexico is here. It is my understanding he wished to speak following the Senator from North Dakota?

Mr. DOMENICI. If that is the order we are in, I ask I be added to that consent in that manner.

Mr. REID. I withdraw the previous request and ask unanimous consent the Senator from North Dakota, Mr. DORGAN, be recognized following the statement of the Senator from Alaska, and following the Senator from North Dakota, Senator DOMENICI will be recognized to give his opening statement.

The PRESIDING OFFICER. Without objection, it is so ordered. The Senator from New Mexico.

Mr. MURKOWSKI. Madam President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. MURKOWSKI. Madam. President, I ask unanimous consent the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MURKOWSKI. Madam President, first of all, let me compliment my colleague, Senator BINGAMAN, for the submission of what has been a difficult and long process, represented by a lot of staff work on behalf of the majority. I very much appreciate his lengthy opening statement because I think it provides us with a detailed explanation of what is in the bill.

As you know, the minority has not had an opportunity to craft this particular bill. I do want to highlight that, indeed, we do want a bill. We think, in response to the President's request, that we should proceed with an energy bill, a comprehensive bill, and we believe, since the House has met its obligation, it is paramount the Senate meet its obligation and produce a comprehensive energy bill.

There are a number of amendments before us today; I am estimating somewhere in the area of 100 or more. As a consequence, it is fair to say that many of these are very contentious.

ANWR has already been mentioned this morning by Senator JEFF BINGAMAN; CAFE is going to require an extended debate; the renewable mandates are, in the opinion of some, not a mandate and, in others, a clear mandate.

The electrical portion of this bill is going to take a great deal of time and explanation for the specific reason that we have not had an opportunity in the committee of jurisdiction to address the process with extended debate, the submission of amendments, and the formulation of a consensus. So there is going to be a lot of education in this Chamber. There will be a lot of input from lobbyists as a consequence of the unfamiliarity associated with a lot of the terminology. It may be possible for Price-Anderson alone, which represents a necessity for the continued contribution of our nuclear industry, to have a good deal of attention based on those who do not want to see the nuclear industry in the United States continue.

There is probably going to be considerable discussion over the issue of Yucca Mountain and the question of what to do with our high level waste that is associated with a number of years of accumulation.

It is interesting to note on that particular item that the Federal Government entered into the sanctity of a contractual relationship with many of the States, and certainly the industry, to take this waste in 1998. So basically the Federal Government is in breach of its contractual relationship. Yet the ratepayers have been paying into a fund of the Federal Government, somewhere in the area of $11 billion over an extended period of time, and the Federal Government has not been able to take the waste. As a consequence, the damages associated with suits are estimated to be somewhere in the area of $60 billion to $70 billion. This seems to be overlooked in the manner in which we address a resolution of Yucca Mountain and what to do with it.

It is fair to say that we have differences of opinion relative to this particular legislation. The chairman of the Energy Committee has indicated a terminology that I believe will come up from time to time that suggests renewable performance standards.

I think it is fair to say we see that as a clear mandate to achieve a certain percentage. The question that comes to mind is why, for example, hydroelectric is not considered to be a renewable. If it is not a renewable, I don't know what it is. Is it beauty in the eyes of the beholder? Is it charity in the eyes of the beholder? It has to be something, if it is not renewable. Yet it is 10 percent of our energy production. I find that rather inconsistent. But we are going to have a lot of time on this legislation. So we are going to have other inconsistencies.

I want to highlight that the United States has not done a bad job in energy production and conservation. We have a chart that I think highlights certainly noteworthy progress because it suggests that 25 percent of the world's energy is what we basically use to produce 30 percent of the world's economy. What do we do that with? We do that with about 3 percent of the world's population.

If you look at this chart, it shows in detail that there has been substantial growth in efficiency since 1973. If you look at the chart, it is roughly 18,400 Btu's per dollar of gross domestic product in 1973. In the year 2000, it is 10,600 per dollar of gross domestic product. That is a 42-percent decrease. So we are using 42 percent less energy to produce the same value today.

I recognize we are all committed to conservation, we are committed to greater utilization of renewables. But I think it is important to point out the direction in which we are going and what we have achieved. We haven't been standing still. We haven't been going the other way. We have been making what amounts to substantive and significant progress. Again, we are using 42 percent less energy to produce the same value today in this country.

To those who suggest that the world is coming down, and to the doomsayers who suggest that somehow we have to abandon our traditional dependence on sources of energy, whether it be coal, whether it be hydro, whether it be oil and gas or nuclear, for the advancement of greater shares of energy sources such as might be available from wind or energy sources that might be available from other alternatives, I suggest to you there are other charts that show an alarming inconsistency relative to the footprint.

Let us look at wind energy, for example, We have developed several charts. The one I want to show first is a wind farm that is familiar to many people, and certainly to those who reside in California and have had occasion to drive to Palm Springs and go through the Banning area in California where the San Gorgonio wind farm is located. For those who have been there, it is not necessarily a very pretty sight. You go up through the pass, and you see this huge area of wind farms. Some of the windmills are moving; some of them aren't moving. How you compare this wind farm in proportion to the generation of oil deserves a few minutes of examination.

This chart actually shows the 1,500-acre wind farm that is in evidence in California today. The energy production is about 800 million kilowatts of electricity, which is equivalent to 1,360 barrels of oil and a footprint of 1,500 acres. I offer that in comparison because one of the lightning rods in this discussion is going to be ANWR. Let us not kid ourselves. We are talking about footprints, and 2,000 acres of ANWR equals 1 million barrels of oil a day.

We obviously need wind power, but we also have to face the reality that there is a footprint. It is not very pretty. Some people say these are nothing more than Cuisinarts for birds because low-flying birds don't do very well going through this particular type of exposure.

I am not going to spend a lot of time on this at this time because we will have to get into some of the specifics in this legislation.

I see the majority leader is on the floor. I want to talk a little bit about the process because I take issue with the process. I have great respect for both the majority leader as well as the chairman of the Energy and Natural Resources Committee.

What we have tried to do is recognize that we have an obligation to be responsive to our President. Our President has charged us to help him seek ways to make our Nation more secure. Our Nation's energy policy is a critical first step in this enormous challenge.

When we fight for freedom, when we seize the day for democracy, we need energy. These things cannot be done without energy. When we pioneer new technology, that saves lives. When we turn on the conveniences that mark the difference between modern life and life of the past, we turn to energy. It is probably something we take for granted more than anything around us. That is why our work today is so critical. That is partially why the process which has gotten us to this point has been, in my opinion, frustrating, it has been embarrassing, and it has not been in the traditions of the Senate.

I think the process is severely flawed as a consequence of the committee of jurisdiction having been ordered by the majority leader to no longer take up the process that ordinarily is appropriate around here; that is, the bills are referred to the committees of jurisdiction and the committees of jurisdiction proceed in an orderly manner—in a manner where amendments are offered, discussions take place, and we proceed through the process.

Does the majority leader seek recognition?

Mr. DASCHLE. Madam President, I was just going to ask if the Senator would yield at the appropriate time.

Mr. MURKOWSKI. I would be happy to yield without losing my right to the floor.

Mr. DASCHLE. I ask if the distinguished Senator from Alaska is aware that the majority leader, when the Republicans were in charge, utilized exactly the same process the last time the energy bill the Senator is now criticizing came to the floor. I am wondering if the Senator could clarify the difference between that set of circumstances and this one.

Mr. MURKOWSKI. I think there is a significant difference. I think what the majority leader is referring to is his right to have a contentious bill be introduced by the leadership. I have been around here 21 years. I do not recall one instance where the committee of jurisdiction has been deprived of the process—not only the committee of jurisdiction, the Energy and Natural Resources Committee, but to some extent the Environment and Public Works Committee, and to some extent I think the Commerce Committee—and, as a consequence, bring a bill up and bypass the jurisdiction of the committee. I think it is not in the tradition of the Senate. It is certainly not in the tradition of the committee process.

Why the majority leader chose to do this on the excuse that somehow it was contentious, to me, fails the true test of this body, of being a deliberative body that considers debate as part of the process, and certainly the value of education from the standpoint of Members of the committee to proceed.

The majority leader knows as well as I do that the reason it was pulled from the committee was that we had the votes to vote out a certain contentious amendment, and that was to open ANWR. The majority leader simply pulled it. I think if he would refer to comments made by the chairman of the committee, which I would be happy to quote later on in the debate, he would see that the chairman of the committee didn't have anything to do with it. It was simply pulled by the leader. The leadership said they were going to take it over, and that is the way it was.

Mr. DASCHLE. Madam President, will the Senator yield for one last time?

Mr. MURKOWSKI. I am happy to yield.

Mr. DASCHLE. I do not mean to interrupt his presentation. I know he has an opening statement. It is not my intention to debate him.

I ask unanimous consent that there be printed in the RECORD the document showing the sequence of events beginning on May 16, of the year 2000.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

S. 2557—BILL SUMMARY AND STATUS FOR THE 106TH CONGRESS

Sponsor: Senator Lott, Trent (introduced 5/16/2000).

Latest Major Action: 10/31/2000 Senate floor actions: Motion to proceed to consideration of measure made in Senate (consideration: CR S11417).

Title: A bill to protect the energy security of the United States and decrease America's dependency on foreign oil sources to 50 percent by the Year 2010 by enhancing the use of renewable energy resources, conserving energy resources, improving energy efficiencies, and increasing domestic energy supplies, mitigating the effect of increases in energy prices on the American consumer, including the poor and the elderly, and for other purposes.

Titles(s): *(italics indicate a title for a portion of a bill)*.

Popular Title(s): Oil Dependency on Foreign Resources bill (identified by CRS); Energy Security Act (identified by CRS).

Short Title(s) as Introduced: *National Energy Security Act of 2000; Marginal Well Preservation Act of 2000; Frontier Exploration and Development Incentives Act of 2000; Federal Oil and Gas Lease Management Improvement Act of 2000; Arctic Coastal Plain Domestic Energy Security Act of 2000*.

Official Title as Introduced: A bill to protect the energy security of the United States and decrease America's dependency on foreign oil sources to 50 percent by the Year 2010 by enhancing the use of renewable energy resources, conserving energy resources, improving energy efficiencies, and increasing domestic energy supplies, mitigating the effect of increases in energy prices on the American consumer, including the poor and the elderly, and for other purposes.

Status: *(dates in italics indicate Senate actions)*. See also: CQ Custom BillTrack Report

5/16/2000: Introduced in the Senate. Read the first time. Placed on Senate Legislative Calendar under Read the First Time.

5/17/2000: Read the second time. Placed on Senate Legislative Calendar under General Orders. Calendar No. 552.

6/15/2000: Committee on Energy and Natural Resources. Hearings held. Hearings printed: S. Hrg. 106–746

9/22/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S9029).

9/25/2000: Motion to proceed in considered in Senate (consideration: CR S9137).

9/27/2000: Motion to proceed to consideration of measure withdrawn in Senate (consideration: CR S9375).

9/27/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S9376).

10/2/2000: Motion to proceed considered in Senate (consideration: CR S9572).

10/6/2000: Motion to proceed considered in Senate (consideration: CR S10039–10040).

10/19/2000: Motion to proceed consideration of measure withdrawn in Senate (consideration: CR S10769).

10/19/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S10770).

10/26/2000: Motion to proceed to consideration of measure withdrawn in Senate (consideration: CR S11104).

10/26/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S11104).

10/27/2000: Motion to proceed to consideration of measure withdrawn in Senate (consideration: CR S11205).

10/27/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S11206).

10/30/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S11378).

10/31/2000: Motion to proceed to consideration of measure withdrawn in Senate (consideration: CR S11416).

10/31/2000: Motion to proceed to consideration of measure made in Senate (consideration: CR S11417).

Mr. DASCHLE. Madam President, I say for the RECORD that the majority leader at that time, Senator LOTT, introduced an energy bill outside of the committee. It was read the first time and was placed on the Senate Legislative Calendar under ''Read the First Time'' on May 16. On May 17, the bill was read the second time. And then on September 22 of the year 2000, the majority leader made a motion to proceed. None of the activity had taken place in committee, except for one hearing. I think the Senator from New Mexico has had multiple hearings on energy and on the bill over the course of the last many months. But this is exactly what our Republican colleagues did in May and September of the year 2000.

So I find it a little inconsistent for the Senator to criticize our efforts to bring a bill to the floor this year when his party and his leadership did exactly the same thing in May and September of the year 2000.

Again, I thank the Senator for yielding.

Mr. MURKOWSKI. Madam President, let me respond to the majority leader because I think we should pursue this a little bit, because the traditions of Senate procedure are very much in play.

While I agree that bills have been brought to the floor in accordance with Senate rules, I completely disagree the Republicans brought bills to the floor while violating the Senate rules. As long as I was committee chairman under Senator Dole and Senator LOTT, I can never recall of one instance where the majority leader ordered me—ordered me—to stop the process of marking up a bill and shut down the standing committee of the U.S. Senate.

And Senator DASCHLE, that is exactly what you did on October 9th of last year. You ordered the Senate energy committee to suspend markup of the energy bill. As a result, the committee has not held a legislative markup since August of last year out of fear that we would want to bring up amendments regarding energy, because you knew we had the votes to pass them out.

Mr. DASCHLE. Will the Senator yield?

Mr. MURKOWSKI. I would like to finish my statement. I will be happy to yield at the conclusion of my statement.

I am sure those on the other side of the aisle recognize that the Standing Rules of the Senate require committees to meet regularly to conduct business. And I am not aware of any unanimous consent request asking the Senate Energy and Natural Resources Committee to be exempt from the rules of the Senate. So I think the comparison of what Republicans and what Democrats did is completely different.

Let me refer the Senator to—before I yield, and I will yield—to a release that came out of Senator BINGAMAN's office. This came out October 9. I quote:

> At the request of Senate Majority Leader Tom Daschle, Senate Energy & Natural Resources Committee Chairman Jeff Bingaman today suspended any further mark-up of energy legislation for this session of Congress. Instead, the Chairman will propose comprehensive and balanced energy legislation that can be added by the Majority Leader to the Senate Calendar for potential action prior to adjournment.

I am happy to yield to the majority leader, without losing my right to the floor.

Mr. DASCHLE. Madam President, I hope the distinguished Senator from Alaska has more documentation than a press release that will allow him to make the assertion he has just made. I do not order my chairmen to do anything. I consult with them. I talk with them. But I think the Senator from New Mexico, who is on the floor, can attest to that fact.

There was no ordering here. There was plenty of consultation, just as I am sure there was some consultation with the Senator from Alaska when Senator LOTT chose to bring the energy bill to the floor in May of the year 2000. I doubt very much that he ordered Senator MURKOWSKI or anybody else to comply with his wishes. I am sure he consulted. That is exactly what we did.

So I hope the Senator has some documentation to support his assertion because that is quite a charge. I will say that there was ample consultation, not only with the Senator from New Mexico but many other Senators who also had jurisdiction.

Nine different committees have had some jurisdictional role to play with regard to the completion and the progress on this legislation—nine committees. To take up this bill, in sequence with each of the nine committees, or even simultaneously, for that matter, would be quite a legislative undertaking.

So we have worked diligently to come up with a working draft that we have shared with our Republican colleagues. But to assert that I ordered anybody to do something is, I think, not only an error but is a disservice to the process that we have been engaged in.

I thank the Senator again for yielding.

Mr. BINGAMAN. Madam President, could I also respond to——

Mr. MURKOWSKI. If I may, before the majority leader leaves, tell him that I very much appreciate that we have had this dialog because I think it truly represents a departure from the committee norm that I certainly have learned to expect around here. And the fact that the majority leader has seen fit to identify that the Republicans have done it, therefore, it is all right—or the implication of that—I think is not necessarily applicable to good legislation or a process.

I again would demur, because having been on the Energy Committee for a little over 21 years, somewhere between 21 and 22—I have never, never had a situation where the majority leader has taken, if you will, an action, either direct or through the chairman, which would absolve the committee from its function.

The fact is, we have not had—and I think the majority leader can ask any member of the committee, at least in the minority, as to whether or not we have had any significant input in this legislation. We have not. We have hot had any markups or any opportunity for any amendments. And I think the majority leader would have to acknowledge that because that is factual.

It was rather curious at the time this was done. It was shortly after we lost control of the U.S. Senate. It was shortly after it became apparent that we had the votes to get out an amendment that would include opening up ANWR. It was clear that we had the votes to do it.

Then the majority leader has left us in this quandary where he stated that even if you do have the votes—and it would be a 60-vote point of order on a cloture—why, we cannot win because he will pull the bill down. I think that kind of an approach to the Democratic process around here is a bit inconsistent with tradition.

Mr. DASCHLE. If the Senator will yield one last time, I know Senator BINGAMAN has been patiently waiting to be able to register his own comments here.

Let me just say, it is just not accurate for the Senator from Alaska to assert that this is unprecedented. That is the word he used; this was ''unprecedented.'' As I said for the RECORD—it is now part of the RECORD—this very action was taken by the majority leader in May and September of the year 2000—exactly the same.

So I would just make sure that our colleagues are aware, this is not unprecedented. It has happened on many, many occasions, involving many, many issues and many committees.

I think we ought to get on to the substantive issues, and put this procedural issue to rest once and for all. We have a lot of important substantive debates in store. I look forward to having those. But I do hope we can clarify the RECORD in this regard and move on to more substantive questions.

Again, I thank the Senator for yielding.

Mr. MURKOWSKI. It is isn't a matter of who is going to have the last word. The majority leader should have the last word. But, on the other hand, this committee was requested to stop markup, and that is a fact. And I do not think it can be colored any other way by the majority leader.

Mr. BINGAMAN. Mr. President, may I clarify, since I have been quoted, at least?

The PRESIDING OFFICER (Mr. JOHNSON). The Senator from New Mexico.

Mr. BINGAMAN. Mr. President, since I have been quoted, or a press release has from my office, the decision to terminate the markup of any legislation on energy was made by me after consultation with the majority leader because it was a joint decision by us that the best way to get a bill to the Senate floor, which reflected the policies that we agreed made sense for the country, was to pursue that approach.

As the majority leader has pointed out, that is exactly the approach that Senator LOTT used when he was majority leader.

As far as the action we have taken in the Senate Energy Committee, I think the Senator from Alaska will acknowledge that we have had a series of hearings. We have had various confirmation hearings. I have approached the Senator from Alaska several times in the last several months to see whether or not we could proceed to consider legislation without having controversial energy bill amendments added to that legislation. I was informed we could not.

We have held off on considering those other nonrelated pieces of legislation. We have worked hard to accommodate the majority and to accommodate the administration in getting all of their nominees approved. We have worked hard to have hearings that were of interest to members of the committee. And we intend to continue doing so.

Frankly, I am very proud of the product we are bringing to the Senate for consideration today. It is a good bill. It does reflect many proposals that came from the Republican side. We worked hard with Members from the Republican side to perfect provisions in this bill. It has not been in an official markup. But just as we have worked with Democratic Members to perfect provisions in the bill, we worked with Republican Members to perfect provisions in the bill, and the same with the administration. This is a combined effort. I feel very good about it.

I hope we can get on with a discussion of the bill, with consideration of amendments, to the extent that Senators have amendments. I know there are many. That is exactly what this period on the Senate floor is devoted to.

I know the Senator from Alaska has been anxious to get a debate on the Senate floor and anxious to get an opportunity to offer his amendments. He has that time. He has that opportunity. I hope we will use it.

I yield the floor.

Mr. MURKOWSKI. I thank my friend for his comments. I, too, wish to get on with my opening statement.

We have to call a spade a spade around here for a change. I hope the chairman of the Energy Committee would recognize the reality and acknowledge that indeed the reason we could not agree on proceeding within the committee on various amendments is because we could only agree to it if we didn't offer an amendment to put ANWR in the package. If I am wrong on that, I hope Senator BINGAMAN will correct me. That is clearly my understanding. The realization was that the votes were there to vote it out of committee, and they didn't want to have a vote in committee. That is a rationale. I think we should quit kidding ourselves.

I didn't read all of Senator BINGAMAN's press release, but I ask unanimous consent that it be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

ENERGY COMMITTEE SUSPENDS MARK-UPS; WILL PROPOSE COMPREHENSIVE AND BALANCED ENERGY LEGISLATION TO MAJORITY LEADER

At the request of Senate Majority Leader Tom Daschle, Senate Energy & Natural Resources Committee Chairman Jeff Bingaman today suspended any further mark-up of energy legislation for this session of Congress. Instead, the Chairman will propose comprehensive and balanced energy legislation that can be added by the Majority Leader to the Senate Calendar for potential action prior to adjournment.

Noted Bingaman, It has became increasingly clear to the Majority Leader and to me that much of what we are doing in our committee is starting to encroach on the jurisdictions of many other committees. Additionally, with the few weeks remaining in this session, it is now obvious to all how difficult it is going to be for these various committees to finish their work on energy-related provisions.

Finally, and perhaps most importantly, Bingaman said, the Senate's leadership sincerely wants to avoid quarrelsome, divisive votes in committee. At a time when Americans all over the world are pulling together with a sense of oneness and purpose, Congress has an obligation at the moment to avoid those contentious issues that divide, rather than unite, us.

Bingaman will continue to consult and build consensus with members of his committee, with other committee chairs and with other Senators as he finalizes a proposal to present to the Majority Leader.

Mr. MURKOWSKI. I have the greatest respect for my friend. But to suggest that somehow what has happened is the everyday order of business in the Senate, where legislation that is contentious is pulled away from committee, let me quote what came from Senator BINGAMAN's press release, again, on October 9. It says:

Finally, and perhaps more importantly, Bingaman said, the Senate's leadership sincerely wants to avoid quarrelsome, divisive votes in committee.

What is wrong with divisive votes in committee? They occur all the time around here. It is a difference of opinion. It is voting out and prevailing or not. Here they say they want to avoid quarrelsome, divisive votes in committee.

Furthermore:

At a time when Americans all over the world are pulling together with a sense of oneness and purpose, Congress has an obligation at the moment to avoid those contentious issues that divide, rather than unite us.

I can tell my colleagues, by taking the authority away from the committee, it certainly did not unite us.

I will have a little more to say about this process because it is important that the American public understands it. We worked on a bill last year. We worked with at that time the minority. We had a lot of hearings. But it was not on this legislation.

I am not suggesting there aren't good provisions in this bill. The point is, the Energy Committee has not had a legislative business meeting since August 1 of last year, despite the Senate and committee rules requiring a business meeting at least once a month. We are either in violation of the rules or we are not. The fact that a bipartisan majority of the Energy Committee would have brought to the floor a comprehensive energy bill with the chairman's report, there is no question the majority leader was free to incorporate it or ignore it, but at least the Senate would have had the benefit of our views.

These are the facts. You cannot whitewash it any other way. The terminology the majority leader was critical of that I attributed to him, that he had ''ordered'' or ''directed'' or ''it was agreed to,'' nevertheless, it happened. Things don't happen around here in a vacuum. We are all aware of that.

The process is flawed. I am glad the majority leader was here so we could have a discussion.

This is not a representative bill. Somehow the prevailing majority has forced the Senate to consider this measure, again, without the benefit of committee deliberation and action. As a consequence, he has made the task much harder of moving this bill. It is much more complicated than it had to be because it has not gone through the committee process. To say, well, Senator LOTT did it that way, I can tell my colleagues, again, I know of no instance where the committee of jurisdiction was removed from its obligation to address the issue before it.

Difficult and divisive issues that could and should have been worked out in committee are going to be right here in the Senate Chamber.

I am going to work towards a bill. That was the first thing I indicated in my opening statement. I mean that. We want a bill. We want a comprehensive bill. We want a good bill. But we want some input in it. So what we will have to do is have our input by amendment. We don't think that should have been necessary but, clearly, that is the only choice we have. As a consequence, we are going to begin a long process.

I suppose I will be subject to some examination, but I think the majority leader said, as far as he was concerned, a portion of the bill was dead—ANWR, dead. That hardly represents anything more than a guess. He may be right. But if it is dead, TOM DASCHLE killed it. Make no mistake about that.

I hope when Members recognize the severity of our dependence on imported oil, they will recognize that in 1973 or

thereabouts, when we had the Arab oil embargo, when we had gas lines around the block—and some people are old enough to remember that—the public was outraged and indignant, that was during the Yom Kippur War. We were 37-percent dependent on oil at that time. We were blaming everybody. The Government was lashing out: How could this happen?

Now we are over 58-percent dependent. When we talk about doing something about it, we better be specific.

We could have had, in the committee process, hundreds of amendments that could and should have been dealt with in the committee. Now they are going to take time on the floor away from our deliberations because the excuse I have heard so far is they are contentious. I don't know what isn't contentious around here. We all respect each other's opinions. But we are entitled to express those opinions in a process associated with the committee function.

As far as I am concerned, the majority leader took control over the committee process. He said: We are going to have 60 votes because there is going to be a filibuster.

I have never heard or seen that kind of an action taken before. Maybe someone will enlighten me as to when the authorities have been taken from the committee. Every committee chairman, whether Republican or Democrat, should remember this because it is a milestone in inconsistency—a milestone, in my opinion, not in the best tradition of the Senate.

Now, we have heard our majority leader lay the responsibility around here, but I think the fault rests solely with his judgment. I don't think there is any question about it, and I doubt very much if anyone would disagree with me, Republican or Democrat alike.

But even with the additional hurdles now being put before us, I think we can move a bill off the floor. This Nation needs an energy bill, one that is rooted in findings—the finding of new alternative energy sources, boosting efficiency, and helping us use less energy. This is something with which Republicans agree. But efficiency and alternatives are simply a two-legged stool, and they are not enough. Alone, they are not going to close the gap between energy supply and demand in this Nation.

We must also seek to safely increase our domestic energy resources, and we must do it in a way that protects our environment. How do we do that? We do that through technology. Make no mistake, we are the most efficient economy in the world, and we are getting better. I have indicated on this chart, again, the recognition of just how well we are doing. As the chart indicates, we are doing pretty well. The fact that we have been able to increase, if you will, our energy efficiency by 40-some-odd percent I think is evidence of the advancements we have made.

Now, it was approximately 42 percent. As I indicated, this chart shows growth in efficiency since 1973, and it shows a 42-percent decrease, if you will. That is a decrease in our utilization of energy. Again, if 3 percent of the population of the United States utilizes 25 percent of the world's energy and produces 30 percent of the world's economy, that is not a bad start. So we are using 42 percent less energy to produce the same value today. That is what that chart shows.

Senator BINGAMAN and I have a lot of charts here, so we will probably be trading charts before this process is over. What we have done, to a degree—and we can do better—is we have proven we can balance our conservation and environmental protection with increased domestic energy production. For that reason, I refuse to take part in the fable being put forth by those who are running the so-called spin machines around here that say the Nation needs to make a choice. Some say we need to make a choice between using the energy technologies of today—coal, oil, gas, hydro, nuclear—or using energy technologies of tomorrow.

Now, some would discuss this as energy vis-a-vis the environment. I don't think that is the issue. Some say this is about today and tomorrow. I don't think that is the issue. Some insist whatever solutions we propose, they can't be done safely today. I don't think that is the issue. The logic sells the American worker and American ingenuity far too short. We need to strive for new technologies and diversify our energy supply. We need to conserve more and become more energy efficient.

If this bill passes today, we will not be driving hydrogen cars tomorrow, in spite of the fact that many have suggested, ''Why can't we?'' It is simply a matter that we don't have the technology. We will not be powered by solar or wind energy by morning. We cannot simply shut down the economy of this Nation and put our national security on hold for a generation or more while we work on new technologies. What we are going to have to do is build a bridge. I think most people would agree that we need to build a bridge through technology to assess, if you will, the goals of tomorrow. It is not going to come just by setting a standard and making it become effective in 12 to 15 years. Most of us are not going to be around to be held accountable in 12 to 15 years for a goal set today.

We have seen what has happened since 1992, when we set certain standards around here on mileage for utilization of nonpetroleum-based utilization in Government vehicles. We haven't achieved that, for the most part. We have been in violation of the agreement. Whom do you blame? The Federal Government. What is achievable, and at what cost? How much are you willing to spend? These are all legitimate considerations that I think have to be dealt with in an open debate and in a manner in which we can get the best experts to advise us on just what course of action to take.

Our energy comes from many sources today—coal, oil, natural gas, hydro, nuclear, and so forth. We must, through the technology, explore new and highly, perhaps, unachievable technologies today, but they might be achievable tomorrow, because they can reduce our consumption in the coming years.

Recognize, Mr. President, we have 200 million cars on the road. Oil is going to continue to be the primary ingredient in surface transportation needs for the foreseeable future—even if they get 30 miles to the gallon. A lot of people reflect on all sources of energy that we have in this country and say: Aren't we fortunate? We have hydro and nuclear, and we have plenty of oil and gas, and a good deal of it we import. Nevertheless, we have it, and we have technology for wind and solar. But make no mistake about it, for transportation, the world is beholden to oil. We don't fly in and out of Washington on hot air—although there is a lot of it here. So whether it be on the ships, trains, trucks, cars, or airplanes, it is oil.

The world is in the same position. Transportation is dependent on oil. So we have to reflect on reality and recognize that, as we become more dependent on oil, it is from overseas. We import that oil, and we become more vulnerable. As I indicated, in 1973 we were 37 percent dependent on imported oil; today, that is magnified to 58 percent. What about nuclear? We have over 100 nuclear plants spread across the country. They provide nearly 20 percent of the energy produced in this Nation. We see that new electric plants are being built today that run on natural gas.

The United States is the ''Saudi Arabia of coal.'' We have West Virginia coal. We have Pennsylvania coal. We have coal in Alaska. We have a supply of coal that would last for centuries. We can use these coal resources in a cleaner, more efficient way, and we have to do that. We can do that. It is just a matter of applying our technology.

Now, all this, to a degree, relates to the economy of this country. We are talking about jobs. It is pretty simple. Development of our domestic resources. I am talking about resources in the United States. That is going to mean thousands and thousands of jobs across our Nation. I am talking about pipe, new software, building new double-bottom, double-hull supertankers, which we are currently building in California and in Mississippi. These are U.S. ships—the largest concentration of tonnage under the U.S. flag in our merchant marine service. These are mandated by law because the carriage of goods between two American ports has to be in a U.S. flag vessel, with a U.S. crew, built in a U.S. yard.

So these are big job issues, Mr. President. That oil that moves from my State of Alaska doesn't go to Japan. There hasn't been a drop of oil that has moved outside the United States since a year ago last April. What did go was

a very small amount that was excess to the west coast. There is no excess oil going from the west coast. We are importing oil from Saudi Arabia, as well as other areas, and bringing oil down from Alaska. My point is very clear: We are becoming more dependent on imported oil, and as we do so, we are exporting our dollars and our jobs. What is the logic of that?

The development of domestic resources would mean thousands and thousands of jobs across the country. These are good paying jobs. These are not service jobs flipping hamburgers in a McDonald's. As I indicated, ships will be built by high-skilled workers. This will help turn around our economy and get us out of this rather soft recession.

Somebody put together a figure—and I do not know how correct it is—that we have lost some 700,000 jobs since September 11. Whatever the case, it is time to put American workers back to work. We can do it, because we have before us some opportunities to produce more energy in the United States.

Let's talk about some of the groups that are supporting proposals to develop more domestic energy in the United States. The Teamsters, the Seafarers International Union, the Maritime Laborers Union, the Operating Engineers Union, the Plumbers and Pipefitters Union, the Carpenters and Joiners, Building Trades, dozens of labor groups representing thousands of workers are behind our efforts for a comprehensive energy bill that creates nothing more than jobs in this country.

I suspect every Member of this body is a little concerned about the creation of jobs, the maintenance of jobs, the switch we have seen, as we have seen more jobs in the service industry but less higher paying blue collar jobs.

Dozens of labor groups representing thousands of workers are behind our efforts for a comprehensive energy plan that creates jobs, that develops energy sources at home. For this reason, I am going to oppose any amendment or underlying provision that sacrifices American jobs for political expediency. I am not interested in political expediency. I have been in this body for over 21 years.

I also reject the underlying premise of the majority leader, the senior Senator from Connecticut, and the junior Senator from Massachusetts—who I hope will join us in this debate. Those who oppose domestic resource development do not believe that American workers and American technology can develop our natural resources while fully protecting the environment. We have that capability, there is no question about it.

Some Members may choose to rely on sources such as Saddam Hussein or others for our supplies, but I will stand with the American workers to develop these new technologies. Unlike those who oppose nuclear, hydro, natural gas, and oil, I have faith and confidence in this Nation and the men and women who drive it. We need an energy bill that provides today's resources to move us to tomorrow's promises, not the shallow measures before us with empty promises that simply export the wealth, jeopardizes the national security, and shifts U.S. jobs overseas.

Obviously, we have some differences of opinion with America's environmental community. They are opposed to various parts of this bill, particularly those parts that suggest we can develop our domestic resources at home; more particularly our oil. They have no scientific evidence to suggest that we cannot. None whatsoever. We will have an opportunity to get into that a little further in the debate.

Let's talk a little bit about the bill before us, the bill that was introduced by the majority leader—call it the Daschle bill. As far as I am concerned, it is pretty hard to identify new job production associated with that legislation. We have already discussed that we have not had hearings, we have not had input, and the excuse has been: Senator LOTT did it; therefore, it is all right. I think I have already made that point, and that point is very explicit. We have never had responsibility pulled from the committee simply because the votes in the committee were supportive of an amendment that would increase domestic production.

Since we have not had the benefit of committee debate and approval, I want to delve into this bill for a closer look. What does this bill do? Even though we have only seen it for a very short period of time, the legislation appears to authorize some 60 new Federal programs, many of which already exist at the Department of Energy or elsewhere. We can go into those.

We are told there are some 32 new studies on various impacts of energy policy, but studies are what one calls for when you are not ready to act. We are ready to act. We need an energy bill now. We need to make decisions now. There is nearly $49 billion in new spending authorizations over the next 5 years. In a time of fiscal constraints, the level of spending called for in this bill, if fully funded, is well above the baseline estimates for these programs. This elevated level of spending will take precious funds away from other spending priorities, such as homeland defense, education, and health care.

As a matter of energy policy, these authorizations have questionable value. Unrealistic authorizations, in my opinion, are nothing more than empty promises. So we have waited for 6 months for the new energy proposal. Yet it is not much different than the one offered nearly a year ago.

What is different now is that 700,000 Americans are out of work in this country, a recession, I remind you, that was the direct result of one thing: Energy price increases that we experienced in 1999 and 2000, all for a lack of an energy policy.

I will go through the titles very briefly. Title X, XI, and XIII of this bill simply rehash other Senators' proposals to address the risk of climate change, and there are so many conflicts among these provisions that will need to be sorted out that is going to take a lot of time. Title XII, XIV, XV, energy R&D and workforce training is the work product of the only markup held before the Energy Committee. What does that say for the committee process? I know that other committees were affected.

In addition, the committee had agreed this provision needed to be revisited before we completed our markup.

Title XVI, technology assessment: Like so many other parts of this bill, it is a title for which no legislative hearings have been held, no scrutiny whatsoever. The scrutiny on it is obviously lacking.

Title I through IX are largely the same as in Senator Bingaman's original bill, I might add.

Title XVIII, critical energy infrastructure, was the very same title that prompted the Democratic leader and the Energy Committee chairman to suspend committee action in the first place. I ask, what is new, what is different about this proposal to merit delaying discussion on these important issues for the past several months?

On a positive note—I am sure my colleagues wonder if there are any positive notes in this bill; I am pleased to say we do. I do not suggest there are no provisions of the pending legislation that have redeeming social value. There are several. There are provisions that we have generally agreed on that could have been refined and supported almost unanimously in committee had we been allowed to meet.

Among those provisions are title I, regional coordination of energy policies and planning for energy infrastructure; title II, PUCHA and PURPA repeal for electricity and possibly changes in other provisions in this title with minor changes; title III, hydro relicensing. The proposal in this bill reflects part but not all of an emerging consensus on how to balance power needs with environmental concerns. And title IV, Indian energy programs. I only wish the Committee on Indian Affairs had been allowed to hold hearings to consider these programs in some detail.

I happen to be a member of that committee. I am a member of the Finance Committee. We still have not reported out the tax aspects associated with this bill.

So we have title V, the Price-Anderson, both the chairman of the Energy Committee and I proposed full review of Price-Anderson for both the DOE contractors and the NRC licensees. Why NRC licensees are not included, I am not sure, but hopefully we will find that out in our debate. Title VI, permanent authority for the SPR and a related study of SPR capacity are areas of broad agreement.

Title VII, higher standards for Federal fleet fuel economy proposed comes

from our bipartisan energy proposal and other alternative fuel provisions that are basically taken from H.R. 4, the House bill, and the renewable motor fuel provisions for ethanol are the same as those that I proposed last year in a draft revision of our bipartisan bill.

We agree on much of title IX, energy efficiency, with one large exception for the 13 SEER air conditioning standards rejected by the administration last year.

There is agreement in principle but not on specific spending levels or program structures in title X, onward, with respect to climate change and energy R&D. Many of the subtle differences of opinion throughout this bill could have been easily addressed in a committee markup and not on the Senate floor, but we are left with that reality for reasons we have already articulated, although we have differences of opinion on those, and I respect that. So I regret we were deprived of the chance to proceed in committee, for now we will have to deal with these changes on the floor, which will make our task harder and longer.

Since I commented on the areas of agreement, let me comment on the issues of disagreement because this is where we are going to be spending a lot of time.

We are talking about issues of agreement, and despite the broad agreement on the majority of issues contained in this bill, there are some other provisions which we have great disagreement on. I want to address some of those today. I think we should have been able to provide the Senate with a recommendation and some sense of legislative history, and we should have been able to better define the debate, but because of the reality that the committee has not had an opportunity to meet, why we have no other choice but to proceed.

I think it is important that particularly the minority that we are in now reflect on what our intention was so we could communicate that to the majority. So we developed some principles on one of the more contentious parts of the bill, and that was the electricity portion.

Basically, what Republicans, as a minority, stand for in our caucus is an obligation to, first, protect consumers.

That would give the Federal Trade Commission precautions and protections without preempting the traditional authority of the States. We feel very strongly about that. We are talking about trying to streamline the regulatory process, eliminate some of the obsolete statutes like PUHCA and PURPA, and limit Federal micromanagement.

One has to wonder, if we reflect on the Enron situation, if we had what is in this bill, could there have been an orderly transition of the market working? Because what happened with Enron clearly was: The market worked. There were no interruptions of power. There were no price increases. One wonders if we had to get permission if one company whose trading suddenly falls to its knees can have an orderly, innovative market work. Well, maybe we can get to that, but I personally am a little uncomfortable with too much Federal micromanagement.

We also stand for enhancing interstate transmission while preserving State authority through the interconnection concept. We want to assure reliability and allow regional flexibility, the North American Electric Reliable Council enforceable standards. We want to promote renewable energy, market-driven approaches and consumer choices and not Federal mandates. That is kind of where we are coming from.

Again, those issues we disagree on because we could not get together and resolve our differences in committee. Among those issues we disagree on are the extent to which we should strip States of their rights over electricity and give those rights to the Federal Government through FERC. How much should we manipulate the electric markets and force a higher priced energy resource on to the consumer at a lower cost? This is the issue of renewable portfolio standards.

How best to protect nuclear plant operators from any exposure on a catastrophic loss and how to keep them afloat, that is the Price-Anderson. Some people see this as a way of prolonging the life of the nuclear industry, but I take issue with those people because they are not realists and do not recognize that there is a trade-off.

There are no emissions with nuclear. There is a problem with waste, but it is emission-free. We look at global warming concepts. We look at emission standards. There is certainly room for the nuclear energy industry, and they need Price-Anderson.

Where do we explore for energy resources to meet our growing needs? We know about ANWR, but what about the lower 48? How do we make automobiles more efficient without jeopardizing safety, undermining consumer choice, and hurting the American worker? This is very real, if you are working in an automobile plant or in a parts plant.

How to make our homes more efficient, again, without hurting the American worker? Our energy efficiency standards such as the proposed 13 SEER air-conditioning and heat pump standard—are those the answer? Our disagreements on these provisions are deep and run to the heart of what we believe the proper role of government to be.

Many of these provisions constitute an unacceptable intrusion of the Federal Government into the marketplace. Many of these provisions have little to do with our energy security but represent a growth in Federal authority at the expense of the States and our concept of federalism.

Some of these issues impact my State of Alaska. The rationale is very clear. We have a chart here that shows Alaska and gives you some idea of the geographics of the area, because it has been said the energy wealth of North America is in the Arctic. If you look at Canada over in the all-white portion here, and look at Russia over across the Bering Straits in the all-white, what you have between them is Alaska. If you concede the energy wealth of North America is coming from the Arctic, you have to concede one thing: The only State with ''Arctic'' in it is Alaska, and we have already seen the development of oil from Prudhoe Bay. That has constituted initially 25 percent of the total crude oil produced in this country but today about 20 percent. It is pretty significant.

A lot of people forget that the same arguments that prevailed in this body in the 1960s are prevailing today on the issue of opening up ANWR.

We have another chart I want to show on Alaska that gives a little different view because it projects the ANWR issue. We will go into this in greater detail. But what I want to show is the realization that the Prudhoe Bay oil field has produced that energy for about 27 years. It has produced it by an 800-mile pipeline, so the infrastructure is already there. It is pretty significant because I indicated it is 20 percent to 25 percent of our total energy.

Let's relate that to real terms because it is appropriate that we relate this to things we can all understand. How big is Prudhoe Bay? It was supposed to have recoverable reserves of 10 billion barrels. We are in the process of producing the 13 billionth barrel now.

How big, according to the experts in the final USGS study? There was one made in 3 days to accommodate the former Secretary of the Interior, but the current one, the most credible one, suggests the reserves at 5.6 billion to 16 billion barrels. If it is an average between the two, it is about 10 billion barrels, which would provide the Nation with as much as Prudhoe Bay is currently providing. So you double that.

The question is, Can you do it safely? We will get into it later. The footprint is pretty small. In H.R. 4, the House bill, it was 12,000 acres. We are not talking about peanuts here. If the oil isn't there, it will not be developed; that is all there is to it. We have to find a lot of oil in Alaska because the costs are so high.

The chairman of the committee talked a little bit about natural gas that has been found. It is important to note on this chart that this gas has been found associated with looking for oil, not gas. It is an incidental find. I used to say to the geologists: If you find another gas discovery, forget it. We are not even going to buy you a Coke. We are looking for oil. But in the process, they accumulated about 36 trillion cubic feet of proven gas, the largest deposit of gas known to exist in North America. So it is very important that we look to ways to get that out. I

appreciate working with my colleague, the chairman of the committee, in that regard.

We need the development of gas from the Arctic. Our country needs it for the simple reason that we are pulling down our gas reserves faster than we are finding new ones. I think we have a chart that shows our reserves in decline. The Senate plan that the Democrats propose—the Senate Democratic plan that has been presented—initially was to provide, I believe, a $10 billion guarantee. It did not address a route selection.

One of the amendments I am going to have will be to mandate a southern highway route that would bring the gas down paralleling the pipeline to Fairbanks and follow the highway into Canada. That would keep options open for Alaskans. It would keep options to bring gas down to the port of Valdez if the market for the liquefied natural gas in Asia should develop. It would provide an alternative to bring gas into Fairbanks and take that gas further on down to Point Mackenzie or take the gas into Anchorage or down the Kenai Peninsula where gas is liquefied and exported and urea and ammonia are made. We want to keep all our options open. So it is very important a southern high route be designated in this legislation.

Make no mistake about it, I support the development of the resources, both the oil and gas. However, the proposal put forth on the other side allows for some untested technology to be used in sensitive areas of the Arctic over the opposition of some of the Native people and virtually every elected official in Alaska.

What I am concerned with here is the realization that currently this legislation does not exclude another route, which would be a route over the top, across Canada. Most of those jobs and most of that activity would benefit Canada and not the State of Alaska, nor American labor.

I remind my colleagues, the gas in question is owned exclusively by the State of Alaska. This is not Federal gas. This gas is on State lands associated with the fields at Prudhoe Bay which are on State lands. Unlike discussions about leasing of the so-called 1002 area—that chart is behind this one—the Coastal Plain where the subject of Federal lands is the issue, the issue involving gas is strictly on State lands and is an issue of the State's ability to develop and transport a resource owned exclusively by the State and not the Federal Government.

As a delegation, Senator STEVENS, Representative Young, and I have worked with the Governor and Lieutenant Governor and our Native population and others to ensure that any proposal fully protects the interests of our residents, the environment, and the state of our economy. So it is important to have a proposal that meets, if you will, our wishes relative to what is in the best interests of the State as well as our Nation. Our Nation, again, is pulling its gas reserves down faster than we are finding new reserves.

Furthermore, the project that has been proposed has some problems with it because the producers of the gas—namely, Exxon, British Petroleum, and Phillips—have indicated at the current prices the project is uneconomic at this time. We have a situation where, to make it economic, we are going to need some assistance. What I am talking about is how we can work to come up with a methodology to take some of the risk out of the movement and development of this project because this will be the largest and most expensive construction project ever undertaken in North America. We have to be careful that it stimulates the United States economy and not the Canadian economy, and that we recognize the contribution of American workers by keeping as much as possible of this pipeline in the United States or Alaska.

What we have here, of course, among our critics are, for the most part, people who have never visited the Arctic. They have never taken an opportunity to go up there.

I will say Senator BINGAMAN has accompanied me up on occasion, where we had the Secretary of the Interior. We got a lot of fresh air. It was cold. But, nevertheless, I think we were given an opportunity of having extended hospitality by the Eskimo people, as well as seeing some of the highest technology in the oil and gas business underway.

It is my intention to offer significant amendments to this gas provision to make sure that the development of Alaska gas is done in the most environmentally sensitive way as possible. That mandates the selection of the southern highway route. I intend to work closely with my colleague, Senator BINGAMAN, on these amendments. And I certainly appreciate his support.

There is another area, however, where we have some differences. I would refer to some of the statements that I have heard. I am not going to go into ANWR in any detail. But I think it is important that we reflect on a few things that are in the minds of some.

We have a chart that shows what happened to our imports of oil when the Trans-Alaska pipeline from Prudhoe Bay to Valdez was built. We have heard critics and environmentalists suggest that the impact of ANWR would not have any significant effect on oil imports into the United States. It shows the barrels of oil per day that the United States imports. In the time frame between 1977, 1978, and 1979, imports clearly were up. Then the 2 million barrels a day came down from Alaska. You see TAPS opens at the top, and imports begin to drop dramatically. The reason our imports dropped is the market for oil didn't decline. It was because of the contribution by Alaska's domestic production.

The point of this chart is a very simple one. It simply shows that when you produce more oil of the magnitude of a million barrels a day, it has a decided impact on reducing imports.

You see this period from 1982 through about 1987, and then imports start to climb up again.

Where would we have been if we didn't have the Prudhoe Bay contribution? That is my point. It would still be going off the chart. The chart in red clearly shows the import vis-a-vis Alaska production. The blue line shows Alaska production coming on line and it beginning to decline. It would not decline if ANWR were opened.

We also have statements by various individuals that are made from time to time relative to the effects on drilling in Alaska, and the impact that it would have on various areas of concern.

I am going to refer to a couple of those because I think we need to shed some light on it.

I can only defer to those who have indicated some position on the issue of opening up the Arctic to oil and gas exploration. I would like to, first of all, refer to comments that were made by my good friend from Massachusetts, the junior Senator, who on MSNBC's ''Hardball with Chris Matthews'' on February 26 of this year and indicated that:

> The alternative to drilling in Alaska is several things. No. 1, there should be drilling almost anywhere but Alaska. No. 2, you can't drill your way out of the problem of the Persian Gulf.

I think the last chart we saw indicated that by drilling our way domestically we reduce our imports. I think that question has been resolved. I think for the first one—drilling almost anywhere but Alaska,—let us look at anywhere but Alaska.

Here is the chart of the United States. If you look at the gray areas, you see the areas off limits for drilling: The entire east coast from Maine to Florida, the area off Florida in the gulf, and then in the overthrust belt—those areas which have been closed primarily because of wilderness mandates. Colorado, Wyoming, and various other States are limited. And clearly the west coast is off limits.

I wonder where in the world the oil is going to come from if we have taken all of these areas off limits. Some suggest going to the Gulf of Mexico off Louisiana. That is where a good portion of our exploration is occurring. It is occurring there because of the technology. They are drilling in 3,000 feet of water. The industry is doing an extraordinary job. We have to go somewhere.

Then we have heard from time to time: Who wants to drill where? Clearly, Alaskans propose drilling and support drilling in our State.

The point is, you have to get it somewhere. If you do not get it domestically, you are going to import it.

As I have indicated, gas isn't the only resource our State can contribute to America's energy security. The gas

will not fill the transportation needs of California, or some of the other States as some have suggested. Only the development of a small portion of ANWR can do this.

We have heard discussions on the issue of safety. We have heard discussions on the issue of Prudhoe Bay—the amount of oil, the timeframe, the wildlife, and the caribou. We are going to show you some of the wildlife associated with the area as a consequence of good conservation and the fact that these animals are not subject to hunting. As a matter of fact, polar bear cannot be taken by a non-Native in my State of Alaska because it is protected by the Marine Mammal Act. If you want to take a polar bear, you can go to Canada, or you can go to Russia, but you can't go to Alaska. I think that is a pretty significant conservation of the polar bear.

You see pictures of the caribou behind me. You see pictures of bears because they are not threatened. They are not shot. You can't run in there with a snow machine and run them down.

Some would be surprised. I don't believe there is anyone here from Texas. So I can make this statement without fear of reprisal. But geologists indicate that ANWR holds more oil than all of the proven oil reserves of Texas—all of Texas. I might add that Alaska is about 2½ times the size of Texas. That would equate to 30 years worth of Saudi Arabian imports. Engineers believe that it can be explored for less than a 2,000-acre footprint. The union men and women of this Nation believe it can create thousands of jobs. It can be flowing in a few years—not 10 years. It is a matter of recognizing that if we want to go ahead with it, we can issue the permits. We can do it safely. Winter exploration will occur on ice roads.

Some suggest that it is a decade away. That is not factual. It is unfortunate that some people who have never been there think they can make decisions about the people who live there.

Unlike the plan that has been proposed on the other side of the aisle about Alaska's gas, the plan to develop Alaskan oil will use proven and tested technology. It will take advantage of existing infrastructure on the North Slope. It will minimize the impact of Arctic environment. It will have the benefit of a 7-year environmental impact statement. It will limit the surface footprint to 2,000 acres, and it will require the use of project labor agreements—labor that will prohibit the export of any energy resource. None will be exported outside the United States.

It is overwhelmingly supported by the delegations—Senator STEVENS, Representative YOUNG, myself, our Governor, our Lieutenant Governor, the State legislature, and the people of the area, the Innupiat Eskimo people.

In conclusion, I realize that some in this Chamber regard energy as just a political issue, pure and simple, with pressure from the environmental community. It is just another piece of the puzzle that has been laid out for us.

I think our last piece is to reach the bipartisan goal of coming together and recognizing that this country simply cannot proceed with its increased dependence on imported oil.

As a consequence of that, I think we have to be very careful to not sell America's can-do spirit short, the American family, and America's future. We must address the national security interests that our President has directed us to do by coming up with a responsible energy bill at this time. As a consequence, we have differences. But, hopefully, we can work that out through a process of debate. We have differences that we can undoubtedly address with regard to alternative and renewables.

But make no mistake about it, we are not going to be able to get there from here on any one alone. It is going to take all our resources to meet our energy demands until we have significant breakthroughs in technology that will allow us to lessen our dependence on our conventional sources of energy.

Energy isn't about politics. It is about families, families across this country wondering if their jobs are going to be there in the morning. It is about preserving the very independence of this Nation because I believe in a nation that is dependent on no one but God alone.

I recognize the public policy debate about how best to approach our energy policy. I know it is complex. I know it will involve issues at the very heart of the extreme environmental agenda. Yet, at the same time, I take issue with that environmental agenda because it suggests that we can simply get there on conservation alone, and that is not a realistic assumption.

At the same time, I think the issue can be framed rather simply. It is better to have strong domestic energy policy—I use the word ''domestic''—that safeguards our environment and our national security than to rely on the likes of a Saddam Hussein to supply this energy.

On September 11, we were importing a million barrels, just a little over a million barrels a day, from Saddam Hussein. Today that is about 870,000 barrels a day. We bombed him twice this year, once just a few days ago. We have put the lives of our young women and men at risk enforcing that no-fly zone over Iraq. He attempts to shoot us down. We take out his targets. But we take his oil. It is almost as if we put it in our jet fighters and go over and take out his targets. He takes our money and develops a missile capability. He pays his Republican Guard. As a consequence, he remains a threat to world peace.

At whom is he aiming these missiles, this biological capability he has developed? At our ally, Israel. When will we come to grips with the likes of a Saddam Hussein as we continue to rely more and more on that source, when we have a domestic source at home that we can develop safely? The answer, in my mind, is clearly that we should reduce our dependence on foreign oil.

We have a statement from an outstanding American who has indicated—well, we will get it for the later debate. But we have a number of statements of outstanding Americans who have indicated they believe it is the worst mistake we could possibly make to continue our dependence on imported oil.

Excuse me. I have a chart with a quote from Richard Holbrooke, Ambassador to the United Nations in the second Clinton administration. This was in the Washington Post of February 12. I quote:

> Our greatest single failure over the last 25 years was our failure to reduce our dependence on foreign oil . . . which would have reduced the leverage of Saudi Arabia.

These are people who know what they are talking about.

Furthermore, I have to recognize the responsibility that we have in this body to the President. President Bush has asked, time and time again, for an energy bill. He has asked as recently as in his State of the Union Address because he recognizes the urgent need for a national energy plan. He knows energy is about jobs. He knows energy is about security. He wants to protect this Nation from the Axis of Evil. He knows that so long as we are dependent on other nations for our energy, our very security is threatened and our future at stake.

So, Mr. President, our challenge is clear: To deliver to this President an energy plan for our Nation and our Nation's future. That is the job of this body. I have indicated, the House has done its job by passing H.R. 4.

So I pledge my support to improve the legislation before us and get a bill to the President as soon as possible. I urge my colleagues to recognize the weight of the task before us, to push aside their agendas, and to do what is right for the Nation.

Finally, in conclusion, I encourage Members to recognize that we have contentious issues here in ANWR, in CAFE standards, in renewable portfolio standards in electricity and perhaps several others. But I encourage Members to use accurate information—particularly when they are talking about my State, particularly when they are talking about Alaska and having never visited there, and particularly when they are expressing the litany of opponents such as some of the national environmental groups who fail to address the question of whether we can do it safely. The answer is clearly yes, we can do it safely based on 30 years of experience in the Alaska's Arctic.

Is it a significant supply? Some suggest it is 6 months. Obviously, it is potentially as much or more than Prudhoe Bay, which has been 25 percent of the Nation's total production; particularly when they say it is 10 years away, when it is only a matter of

a few years if, indeed, the oil is there; and, finally, to recognize that when we passed legislation that would have opened ANWR in 1995, if President Clinton had not vetoed it, we would have all this behind us. We would know whether the oil was there. And if it was, it would be flowing and reducing our dependence on imported oil.

So it is in our national security interests. It is in the interests of American labor and American jobs to move forward with ANWR. I encourage Members who have been lobbied heavily by America's environmental community to recognize that they are going to be called on to vote, to vote on the question of whether to appease and be responsive to the environmental lobbyists, or do what is right for America.

I will conclude with a reference to a statement made by a former and respected Member of this body, Senator Mark Hatfield of Oregon, who was, I might add, a pacifist—at least in the minds of many of us, although we had the deepest respect for him—who said: I will vote for opening ANWR any day rather than send a man or woman in our Armed Services overseas to fight another war over oil.

I think that says a lot.

Mr. President, I yield the floor and look forward to the statements of my colleagues who will be forthcoming throughout the day.

Mr. DASCHLE. Mr. President, the events of the last year have highlighted what Americans have known since the 1970s, our economic security and our national security depend on our energy security. Americans need—and deserve—an energy plan that truly moves us towards energy independence.

America's appetite for energy continues to grow each year. Today we import nearly sixty percent of our oil. And the problem is getting worse, not better.

Over the next 10 years, the United States is expected to consume roughly 1.5 trillion gallons of gasoline, most of it refined from imported oil.

We need to reduce our growing dependence on foreign oil. We need to ensure the reliability and security of our energy supply. And we need to do so in a way that is good for our families, our economy, and our environment.

There is no doubt in my mind that we can do all of these things, if we're willing to invest in new ideas, new technologies, and new approaches to old problems.

As we begin this energy debate, I think we should keep in mind four key goals. Any energy plan we pass should increase our energy independence, it should be good for consumers, it should create jobs, and it should be responsible, both environmentally and fiscally.

Nine committees have worked on this bill, and Senator BINGAMAN has done an amazing job of coordinating input from so many committees and so many Senators on both sides of the aisle.

In the end, he's put together a bill that meets each of these goals.

Opponents of this bill have essentially said that we face a choice between production and conservation. This bill demonstrates that we can, indeed, increase both.

First, production.

For a long time, we've looked for the ''Made in America'' label on our clothes. We need to put that same ''Made in America'' label on our energy, too.

That means increasing our domestic production. But it also means recognizing the reality we face. We hold only 3 percent of the known world oil reserves, and we consume 25 percent of the world's supply. Even if we drilled in everybody's back yard, we could never meet our own demand with our own supply.

One might call the assertion that we can drill our way to energy independence, fuzzy math.

That's not to say that we shouldn't drill for oil and gas in the United States; to the contrary, we can and we must.

But we cannot simply drill our way out of this problem, and we should not be drilling in environmentally sensitive areas, such as the Arctic National Wildlife Refuge.

Here is what we should do: We should look to develop natural gas deposits in deepwater areas of the Gulf of Mexico, and allow for increased production where it is environmentally acceptable.

We should explore for oil and gas in the National Petroleum Reserve in Alaska, the area where the three largest onshore oil reserves in the last ten years have been found.

And we should construct a pipeline to bring natural gas from Alaska to the lower forty-eight states. There are 35 trillion cubic feet of known natural gas reserves on the North Slope of Alaska.

Right now, we are literally pumping that gas back into the ground because we have no way of getting it to people.

This 2,000 mile long gas pipeline would create 400,000 jobs, use an estimated 5 million tons of US steel, and ensure that we do not become dependent on imported liquified natural gas from the middle east. If we want to create jobs, increase our energy security, and help the U.S. steel industry, then building this pipeline is the way to do it.

Energy for America, jobs and opportunity for steelworkers, and no damage to sensitive environmental areas, this is the type of pro-development, pro-jobs, energy project we should be encouraging.

Others assert that we can dig our way to energy independence. Some see coal as a panacea. Others see it as a dirty and unsafe source of energy. But the choice between simply using more coal or less is a false choice.

This bill says that we can use coal better.

It invests in new clean coal technologies, which are good for our environment. In so doing, it will create jobs in an industry and area that has been losing them, and will help guarantee the future of coal in America.

Still, we need to recognize that drilling and digging simply won't add up to independence if we don't find other fuel sources here at home.

That is why this bill invests heavily in new and renewable fuels, including biofuels.

For example, it will triple our use of ethanol, which is a clean-burning, corn-based, renewable fuel.

It will help us harness the power of the wind, the sun, and the heat of the earth itself with tax incentives to develop these sources of energy, and to keep the energy produced affordable.

Recent analysis indicates that investing in these clean and renewable energy technologies will create 1.3 million new jobs for American workers.

More importantly, energy from these sources would come from American farmers and producers, pass through American refiners, and fuel American energy needs. No soldier would have to fight overseas to protect them. And no international cartel could turn off the spigot on us.

For all of those reasons—economic, security, and environmental—this bill sets a goal of generating 10 percent of our energy from renewable sources by 2010.

Some states are exceeding this goal already. There's no reason that our nation can't meet it.

Our bill also invests in common-sense efficiency, and the new technologies necessary to increase efficiency without making sacrifices in performance.

Take air conditioners, for example. Two years ago, the Clinton Administration issued a standard that would have increased the efficiency of air conditioners by 30 percent.

Here is what that means: a 30 percent more efficient air conditioner would save our nation from having to build the equivalent of 50 new power plants and save Americans $3 billion in electricity bills.

Meeting that standard isn't a pie-in-the sky proposal or a crushing new mandate for business.

In fact, Goodman Manufacturing Company, the second largest air conditioning manufacturer in the United States supports this standard and says that they can meet it with no additional cost to consumers.

As John Goodman, Chairman and Chief Executive Officer of the company, said, ''[the higher standard] is just the right thing, and it's something our industry can do to help.''

The Bush Administration revoked this standard, and the House-passed bill doesn't include it. We think it makes sense, and that's why we require it.

This bill will help us make similar efficiency gains with items such as vending machines, commercial refrigerators, lights—even our power lines.

As Senator KERRY has said so well, you just can't tell Americans you're serious about energy security unless

you're willing to tackle transportation, where 70 percent of the oil we purchase is consumed.

During the 1970s, America created a program to increase auto efficiency. Those standards now save 3 million barrels of oil every day. But because those standards were frozen seven years ago, our vehicle fuel efficiency is worse now than it has been in twenty years.

So this bill says that automobiles and light trucks should average 35 miles per gallon by the year 2013.

This doesn't mean that we are going to take away anyone's SUV or make every American drive a compact car.

It means that the car companies will do what they say they can do, and increase the efficiency of the vehicles they make.

In fact, the National Academy of Sciences found that technology that already exists can be used to improve the fuel economy of automobiles and light trucks without affecting safety or performance.

When the fuel-efficiency provisions of the Senate energy bill are fully implemented, they will not only save American drivers billions of dollars—they will save our Nation the same amount of oil we are currently importing from the Persian Gulf.

Finally, when it comes to energy efficiency, this bill says that the Federal Government must lead by example.

Last year, the Federal Government's utility bill totaled $3.4 billion. This bill mandates that the government use cost effective technologies that consume less energy.

This small step alone—one that is not a part of the House-passed bill—will save taxpayers $250 million a year.

Doing all of this will be good for consumers and families, good for our energy independence, and good for our economy.

Finally, this bill demonstrates international leadership on global climate change—leadership that the Administration, sadly, has been unwilling to show.

This bill links energy policy and climate change by creating a national strategy to track and reduce carbon pollution and other greenhouse gas emissions. It funds research and development on innovative technologies to reduce carbon pollution, opens markets for clean energy technologies, and demands high-level coordination and leadership from the White House.

The science on this issue is clear. Carbon pollution and other greenhouse gas emissions are causing changes in our climate, including coastal flooding, agricultural disruptions and significant damage to our ecosystems.

As the largest emitter of carbon pollution in the world, I believe the United States has a special responsibility to help address this problem. This bill does.

Now, we know what our opponents are going to say about this bill and about our approach.

They are going to say that we are going to take away people's SUVs and washing machines—we are going to ask you to sweat in the summer and freeze in the winter.

They will try to tell you that this is a choice between abundance and austerity. They couldn't be more wrong.

Actually, they are right about one thing—we do face a choice. It is a choice between the past and the future, between a bill that is good for consumers, or one that serves only the energy companies.

The energy bill that passed the House is based entirely on the old philosophy of dig, drill and burn. The centerpiece of that plan is to open the Arctic Refuge.

Supporters of drilling in the Arctic Refuge have used almost every opportunity to justify their position.

When we were experiencing rising oil prices, supporters said it would make oil available quickly and drive prices down in the process.

But even if Congress were to authorize drilling in the Arctic National Wildlife Refuge today, we would not see significant quantities of oil produced from the refuge for 10 years at the earliest.

When our economy began to slow, supporters began billing it as an economic stimulus measure, saying it would create 750,000 jobs.

Yet that number comes from an outdated and biased study by the American Petroleum Institute. Recent, more credible estimates by the Congressional Research Service and others suggest that only 60,000 jobs would actually be created.

And now, as we face threats to our nation's security, those same supporters are wrapping their argument in the cloak of patriotism, saying that drilling in ANWR is vital to increasing our energy security.

But the oil there would only meet America's needs for less than 6 months.

Let me give you an example of how little oil that is: If we all put replacement tires on our cars that were as good as the ones that came with the cars when they were new, the resulting increase in energy efficiency would save 5.4 billion gallons of oil—70 percent more than the total amount of oil in the Arctic Refuge.

Compare that our proposed Alaska natural gas pipeline we have proposed which would provide natural gas to American consumers for at least 30 years.

The rest of the House bill is a smorgasbord of tax cuts for oil and gas companies. The Republican bill includes $33 billion in tax cuts. Twenty-seven billion of that goes to the biggest energy companies.

Perhaps even more astonishing is this fact: Because the House bill fails to make meaningful reductions in the transportation sector and relies on getting oil from a source that would produce so little and so far in the future, if we enacted it into law today, it would actually increase our dependence on foreign oil.

The House plan may indeed be an energy plan for a new century. Unfortunately, that century is the 1900s.

Our bill takes the better path—for our energy security, for our economy, for our environment, and for our future.

Now, there is one other thing we're hearing from the other party, and it is the complaint that this bill was not subject to a markup in committee.

I find this complaint to be ironic for two reasons.

First, it is not at all unusual to take a bill directly to the floor. In fact, my colleagues might remember that the Republican leadership did the exact same thing with a Republican energy bill—the National Energy Security Act of 2000.

Second, now that we're debating an energy bill, some of my colleagues seem more intent on debating how we came to debate this bill.

I made a promise to bring this bill up for debate. That is exactly what I have done.

No one's right to be heard will be compromised.

Anyone is welcome to offer any amendment they choose.

I expect to have a full and open debate on this bill. The less time we spend worrying about procedure, the more time we can spend debating the direction and substance of our Nation's energy policy.

So, with that, I want to thank Chairman BINGAMAN and the other committee chairs who have worked so hard to assemble this bill.

And I look forward to working with my colleagues on both sides of the aisle in order to make progress on this vitally important piece of legislation.

Mr. REID. Mr. President, we have had a number of calls in the cloakroom from Senators who want to come over and give opening statements. Others want to offer amendments. I am wondering if I could ask the Republican manager, because I have cleared this with the manager on this side, if we were alternating back and forth on the statements—as I said, there are a couple of more statements at least that people want to give this afternoon. It is going to take us into early evening. It is my understanding there is something some Members are interested in doing tonight. I wonder if when we get into the amendment stage we could have an initial agreement that we alternate back and forth on amendments on this very important legislation. That is normally the way we do it. Is there any problem with that?

Mr. MURKOWSKI. Mr. President, it is my understanding we had reached agreement on that earlier in our discussion, that we would go back and forth as Members appear.

Mr. REID. On statements.

Mr. MURKOWSKI. And we would go back and forth on amendments. I ask the Chair if that agreement has not been previously made?

Mr. REID. I apologize. I thought it was on statements.

The PRESIDING OFFICER. There is an agreement on the recognition of the following two Senators: Senators DORGAN and DOMENICI, in that order.

Mr. MURKOWSKI. I would not object to what has been propounded by the majority whip.

Mr. REID. I would also say to my friend, so there is some order, Senators DASCHLE and BINGAMAN have decided they will offer the first amendment and then we will go to the Republican side. We will probably not get to that until first thing in the morning the way the statements are going.

I ask unanimous consent that in addition to the alternating of opening statements on this bill that the amendments also alternate; that Senator DASCHLE or his designee will offer the first one and then go to Senator LOTT or his designee, and so on down the line.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from North Dakota.

Mr. DORGAN. Mr. President, I listened to the comments of my colleague from Alaska. He obviously feels passionately about this issue. I have served with him on the Energy Committee for a long while. He studies these issues carefully. He uses a prodigious number of charts when he makes his presentations.

I noticed that he did say in his presentation that there is much in this bill on which we can find agreement. He indicated there were a number of areas of agreement. I know he stressed areas of disagreement, but I think he also said there are a number of areas in this legislation where there can be some broad agreement. I think that is helpful.

At the start, however, I want to comment on the exchange between my colleague from Alaska and the majority leader.

The majority leader brought this bill to the floor of the Senate for a very important reason. It is not unprecedented. It was brought to the floor of the Senate rather than being moved through the committee first.

We all know the issue of energy security is more than just finding additional supplies of energy. As a result of September 11, and other concerns about the broader area of energy security, the majority leader decided to bring to the floor the product of a number of different committees of the Senate working on this issue of energy security.

This is about protecting America's nuclear power plants against attack by terrorists. That is part of this bill. That is part of energy security. So there are a series of things that were brought together, including the work and the efforts by the Finance Committee dealing with tax credits. That, too, is part of this bill.

The majority leader decided to bring this bill to the floor as a product of a number of different committees, to work on all of these issues on the floor of the Senate, so all Senators would have the opportunity to address these issues.

It does not shortchange the Senate to adopt that approach. It has been done before. It is not unprecedented. And the majority leader did not make a mistake in doing so. I think he advanced the interests of the energy bill and advanced the interests of the debate about energy in this country by adopting this strategy, despite the fact that some of my colleagues think it was the wrong thing to do. I respect their opinion, but they are just flat out wrong.

We are here in the Chamber dealing with energy. That is where we ought to be. This is an important public policy issue for this country. The bill that has now come to the floor has the combined input of many committees, which is as it should be. We ought not deal with these issues incrementally.

I say that, because I know the majority leader has been criticized by some for this approach. The majority leader has done exactly the right thing and has done it at the right time. He kept his word in bringing this bill to the floor, so we can have an open and full debate on all of the issues that affect this country's energy future.

This is probably not the most opportune time to debate energy. Timing is everything, of course. This morning I stopped for gas on my way to the Capitol Building, and it cost $1.08 per gallon. In high school, when I was pumping gas at my father's service station, I was pumping gas for about the same price—actually slightly more in real dollars than we are paying today for a gallon of gasoline.

The current price probably does not promote great urgency among the American people that we must have a new energy policy now. Most Americans understand, despite the fact that the price of gasoline is very moderate at this point, that we have a very tenuous existence with respect to our economy and its dependence on a continued long-term source of oil from places such as Saudi Arabia, Kuwait, the Persian Gulf, and Central Asia.

It is foolhardy for us to continue betting our future economic progress on a sustained supply of oil from the Middle East. We need to do better than the increasing reliance year after year that we place on that supply of oil. It doesn't mean perhaps that we can ever—or certainly not in the short or intermediate term—shut off that oil or find replacements. I am not suggesting that. But I am saying that the relentless march to increase our dependence on foreign sources of oil, especially on energy coming from the Persian Gulf, is not a very smart policy.

Let us determine how we can, together, Republicans and Democrats, in good public policy, begin to ratchet that back down, so we have less dependence on foreign sources of energy.

How do we do all of that? We will hear many statements about many facets of this energy policy. There are as many ideas about good energy policy as there are Members serving in the Senate. Emerson once said that common sense is genius dressed in work clothes. Common sense is what we need in putting together the components of an energy bill that work.

Simply, do we need to produce more energy to meet future energy needs? The answer is yes. We need to produce more. Let's do it in an environmentally sensitive way. So produce more in an environmentally sensitive way, No. 1.

No. 2, do we need to conserve more? Yes. We waste too much energy. Let's do that in a thoughtful way.

No. 3, can we achieve greater efficiency with all of the appliances we use every day in every way in this country? Yes, of course. That also is an element of conservation.

No. 4, and finally, turning to limitless, renewable sources of energy. That makes sense for this country as well.

These policies combined will help wean us from the overdependence on foreign sources of energy, help us develop additional sources of energy at home, and also help us become more efficient and more conservation-minded as we use energy.

Now, more than ever, we understand this is not just about energy security, but that energy security is about national security. That has to be part of this debate. Reducing our dependence on foreign oil and better protecting our energy infrastructure, that is about national security.

Financial assistance in this bill would help improve critical energy infrastructure security. That is a part of this legislation that is very important.

This legislation will increase domestic oil, gas, and coal production. It will do that in a thoughtful and environmentally sensitive way. It will help remove barriers to production on public lands in an environmentally sustainable manner, and it will authorize the construction of a natural gas pipeline from Alaska to the lower 48 States, helping to create hundreds of thousands of jobs and, more importantly, helping us move an estimated 32 trillion cubic feet of reserves of natural gas that exist in Canada, reserves that are leased and that can come into our inventory, when we are able to build the pipeline. That pipeline authorization is in this legislation.

This bill will promote research, development, and deployment of advanced clean coal technologies, something very important, including, especially, opportunities for lignite coal, because coal is going to be a part of our energy future. Lignite coal is a significant part of that opportunity as well.

One of the questions for us when we finish this debate will be: are we going to see the future through a rearview mirror? Is our energy policy a policy of yesterday forever? We have some who will come to the floor who will say: I have a new idea. Let's just drill and dig for more oil and coal.

What I say is: we support that. We need increased production. But if our strategy for tomorrow's energy supply is simply drilling and digging, that is a strategy of yesterday forever.

We had someone from the Energy Department testify before the Energy Committee. I asked them a simple question that we similarly ask about a lot of programs. On Social Security, we ask the question: What will be the stability and the financial circumstance of Social Security in 25 or 50 years? Can you tell us what is going to happen 50 years from now?

So we do charts and graphs and create the financial mechanisms to evaluate whether we will be on safe ground in 50 years with respect to Social Security.

I asked the Energy Department officials: What is your plan for 35 and 50 years from now with respect to energy? What kind of energy will we be using? What will be the energy mix? How much will we be using?

The answer was: We don't have a plan.

The reason I asked the question was, I was trying to determine, are we going to wean ourselves from this overly dependent need for foreign sources of oil? Are we going to move toward technologies that will change our use of energy, our need for certain kinds of energy? Have we decided as a country, for example, if we want to change to a goal of deciding that in 50 years we want fuel cell cars driving on the streets of the Nation's Capital and all across the country using oxygen and hydrogen and throwing water vapor out the back end? That sounds like a pretty good deal to me.

The Energy Department's answer was: We don't have a plan. We will get back to you.

My response was: We need a plan. America needs to decide its energy future, what it intends to do to with respect to energy supplies in the long term.

If we do what some of my colleagues counsel at this point, we will be back here 25 years from now, and we will have exactly the same debate. People will wear the same color shoes and shirts and suits, and they will stand up and use the same tired, worn arguments.

The solution 25 years from now? Dig more and drill more. This debate doesn't change. Only the calendar changes. The people change. You could have read this debate 25 years ago. You will be able to read it 25 years from now, unless we decide we are going to do some things differently.

My first car was a model T Ford that I restored as a young boy. It was a 1924 Model T Ford that I bought for $25. It was in an old granary and had not been driven for decades. The rats had eaten off the seat covers and all the wiring. It was a tin shell with an engine that didn't work and tires eaten off and rotted off. My father owned a service station, so I pulled it in and put it up on a hoist. I worked on it for nearly 2 years. I restored that 1924 model T Ford. It was a great thing to do as a high school boy.

Then I got interested in girls and decided a 1924 car was not the thing, and so I sold it—much to my regret. I have regretted that sale ever since. I got myself a new two-door car for a couple of hundred dollars.

My point about the Model T Ford is that you put gasoline in that 1924 car exactly the same way you put gasoline in a 2002 car. Everything else in our lives has changed. Everything has changed around us, except you drove a 1924 Ford up to the gas pump the same way you drive a 2002 Ford up to the gas pump. You take the cap off, you stick the hose in, and you start pumping. Seventy-seven years later, nothing has changed. Should it? Will it? The answer is, yes, if we decide as a matter of public policy that we want to put in place energy policies that will advance a different kind of energy future in this country.

Now, let me talk a bit about some features of this bill that I think are very important. This bill contains a series of goals that I think almost everybody would or should agree with: To ensure adequate and affordable supplies of energy from renewable sources, as well as oil, gas, coal and nuclear; improve the efficiency and productivity of energy use, including energy reliability and productivity of electricity; and to improve energy use in industry vehicles, appliances, and buildings.

I am particularly interested in renewable energy. Last week, I brought up on the floor of the Senate the 5-year extension of the wind energy production tax credit. That tax credit expired at the end of last year. The result of Congress allowing that to expire means projects are put on the shelf that are ready and funded. They are put on the shelf. There is a company that has a 150-megawatt project for North Dakota. They have the money for it—$150 million. The project is ready to be launched. However, the company shelved the project until Congress passes the extension of the wind energy production tax credit. That makes no sense. But taking energy from the wind with highly-efficient, new wind turbines and producing electricity, and putting it on lines and moving it across the country makes great sense to me.

On transmission issues, we have new technologies, such as the composite conductor technology, which can double or triple the efficiency of existing transmission lines. Putting up a wind turbine, producing electricity from this turbine, and transmitting that electricity makes great sense. I come from a State that is No. 1 in wind. The U.S. Department of Energy says North Dakota is the ''Saudi Arabia of wind.'' The potential to develop wind energy from my State is exceeded by no other State. We are last in trees. North Dakota ranks 50th in native forest lands. But it ranks first in wind.

So, we want to put up some wind towers in North Dakota and be able to move some of this energy around the country. Renewable, limitless sources of energy—that makes good sense to me.

What we have now is all of these projects that are stalled, because Congress has not done its job. This bill contains a five-year extension of the wind energy production tax credit. And while I support it in this bill, I would like to get it done apart from this bill because, as we know, when we complete the bill in the Senate, we will be in conference with the House. This will take months.

My colleague from Wyoming, the other day, said—after I gave this presentation on extending the wind energy production tax credit—he said, yes, but we are taking that up as part of the energy bill. That is of little solace to me. It will be months and months before this energy bill is completed. Meanwhile, projects in many States will languish on the shelf when, instead, those projects should be helping to create jobs and energy.

With respect to electricity, I have just described the reliability of the transmission grid and the opportunity in this legislation to help facilitate access to and reduce constraints of the grid. This bill will help create a more seamless and national grid, and it will help States like North Dakota use its vast resources, such as coal and wind, to be able to move electricity around the country.

We also are going to repeal PUHCA and PURPA in the context of this comprehensive energy bill, while we will still retain sufficient consumer protections and safeguards, which are included in this legislation as well.

And, this bill is going to facilitate energy production and transmission on tribal lands.

It also includes measures to research and deploy transmission technologies—which I am very high on—including composite conductor wire that can dramatically increase the efficiency of existing wires to improve the efficiencies of existing lines and alleviate transmission bottlenecks.

We are going to hear a lot about the energy efficiency of appliances, such as residential air conditioners. We put into this bill what is called a SEER 13 standard with respect to air conditioners. This bill contains a number of provisions designed to save energy in buildings and save energy with more efficient appliances. The SEER 13 air conditioner standard would save an amount of energy equivalent to that produced by nearly 70 power plants. This standard also would save $3.6 billion in electric bills for consumers over a 12 SEER standard.

The Energy Department received more comments on this standard than on any other rulemaking in the agency's history. The vast majority were in support of this 13 SEER standard, and that is why we have put this standard

in the bill. This bill contains Federal building performance standards, too. It requires the Government to purchase energy-efficient products, among other provisions, because the Federal Government is the single largest user of energy in the United States.

I want to talk for a moment about transportation, which is the sector in which we consume the most amount of energy in this country. If you look at the demand for energy, you see that the transportation sector is where the largest demand occurs and where that demand is increasing.

My colleague, Senator BINGAMAN, has used this chart on a good many occasions. There will be a debate in the Senate on the issue of CAFÉ standards. I come from a State that uses pickup trucks, SUVs, and four-wheel-drive vehicles extensively. It is not a convenience for someone in a northern State, which experiences rough weather, to need a four-wheel drive. These vehicles also are not a convenience for people that are out there operating a ranch, a farm, or living in a small town and are 50 miles from a hospital. It is not unusual for these people to want to drive a vehicle with some weight, a vehicle with four-wheel drive. I don't think any of them want someone to tell them they can't do that.

We can't address energy without addressing efficiency and without addressing the opportunity to make this transportation sector more efficient. So, some say, let's go to the old CAFÉ standard. I happen to prefer a pull rather than a push. Some say, let's push to 37 miles per gallon or whatever number that is being used today. I think we ought to say to consumers that we are going to empower them when they buy their vehicles. We are going to give them a very substantial tax credit to purchase more efficient vehicles—a per car credit of $4,000 or $5,000 depending on the value of the car.

So, a consumer would be able to go to a car dealership, knowing that such a credit would only exist if he or she were to buy a car that meets certain efficiency standards. If one manufacturer is not making that type of car, then the person would be able to go to another manufacturer.

I want to ''pull'' manufacturers to be making the kind of products that consumers would want to buy, given certain tax credits. But I don't want people, because of where they live, or because of their needs, to be penalized, if they drive a four-wheel-drive pickup truck or SUV. We are going to debate that. So, I will have more to say about that in the future.

We have a difference of opinion on whether we should provide a legislative push or pull. I believe that our future with respect to vehicles is to be able to expect that we will see the manufacture of more hybrid vehicles and hydrogen-powered fuel cell cars. I drove a demonstration car on the Capitol grounds, which was running on oxygen and hydrogen, and it was emitting water vapor out the back end of the car. That is the future. But we won't get to that future unless as a matter of public policy we pull very hard in that direction. Otherwise, we will be consigned to yesterday forever. We will keep doing what we have done forever. The past is our future. That is not what I want for an energy policy.

If that is going to be the end of this debate, we should not have it. If this is going to be the same debate we had 25 years ago—the names have changed on the floor of the Senate—but if this is our debate, then it is a thoughtless debate. This country needs to understand it has a world class economy, the strongest economy in the world. It uses a substantial amount of energy. That use continues to increase.

We are overly dependent on foreign sources for that energy, especially from areas of the world that are inherently unstable, and we would do well to remember that—especially now more than ever.

There are some who say, well, that is all really interesting. You folks who talk about renewable and limitless sources of energy, that is really great because, they will say, look at this chart. Look at the renewables used in the United States, compared to other countries. We are not doing much.

It is a very small part of our energy supply. They will say, you are focusing on the mouse in the corner rather than the lion at the door.

The fact is, this country has the opportunity right now to describe an energy policy that really does turn the corner and move us in a very new direction. If we are moving in the right direction at the end of this debate, then we will have probably passed the kind of bill that was brought to the floor of the Senate and perhaps even have improved upon that. Then we will especially be able to say: We are doing something different.

Think about this. I just described that, in over 75 years, nothing has changed with respect to the way we put a gas hose in a 1924 Model T Ford versus a 2002 Ford Explorer—nothing. Think of this country. We have, as people, written, split the atom, spliced genes, cloned animals, and invented radar, the silicon chip, and plastics. We have built airplanes and learned how to fly them. We have built rockets and flown to the Moon. We have cured polio and smallpox, and invented the telephone, television, computer and the Internet. And now we are hearing from some that perhaps, as a new energy policy, we must just adopt the same old energy policy and put it in place for the next 25 years. That is the legacy we want for our country? I do not think so. Our country will go much further, if we summon our manufacturers, scientists, and geniuses to work on this problem in the context of national security needs.

I indicated at the outset that this might not be the best time to debate energy policy, because gasoline only cost $1.08 a gallon this morning. When gas is $1.08 a gallon, there is not a lot of urgency for change. A year and a half ago, we experienced some rolling brownouts and blackouts, and price spikes in California. We had a lot of problems. There were a lot of reasons for those problems.

At the moment, though, there does not seem to be a sense of national urgency. When gas is $1.08 a gallon, there is just not that kind of urgency. As I said, I was thinking of this old country western song: ''When gas was 30 cents a gallon, love was 60 cents away.'' When I was pumping gas at my father's service station many years ago, it was 30 cents a gallon. In constant dollars, gasoline costs about the same now. In fact, it is slightly cheaper now.

We must, it seems to me, take the product that Senator DASCHLE and Senator BINGAMAN have brought before the Senate, and work on this with an eye toward dramatically improving this country's energy future.

This Earth, according to scientists, was formed somewhere around 4.5 billion years ago. Some say that in the first nearly 4.499 billion years nothing happened, but that in the last million years, man invented use for his arms, legs, and his cave and, in the last 10,000 years, he invented language, tools, the wheel, fire, primitive warfare, and agriculture. Five thousand years later, he invented recorded history and chariots. In the past 500 years printing occurred, the steam engine was invented, and the industrial revolution occurred. But nearly everything else has been invented in a very short period of time the last 100 years or so. Yet, we tend to think that our existence on Earth is the only existence; that this Earth was placed here for our convenience.

If we take the long view of energy policy, we will understand that this is not the case. The long view of energy policy says: Let's change what we are doing. Yes, let's produce more; but, let's also disconnect in the long term and pay more attention to opportunities for limitless and renewable sources of energy. Let's have real conservation, real efficiency, and let's, as a nation, understand that energy security is part of our national security.

I thank Senator BINGAMAN. Serving on the Energy Committee has been a source of pleasure for me. These are very interesting and important national issues. Senator BINGAMAN, Senator MURKOWSKI, and many on the Committee have exhibited great passion about these issues. I chided Senator MURKOWSKI for the number of charts he used today. It simply shows the depth of his passion, and I respect that.

Senator BINGAMAN has, with quiet, effective leadership for a long period of time, worked to bring before the Senate a bill of which we can be proud. I say to him how much I appreciate his work.

The Energy Committee has been, from time to time, a divided committee. At other times, we have worked closely together. The men and women who serve on the Energy Committee are good thinkers. They come from different parts of the country and combine to bring to the center a good, interesting, and aggressive debate about these issues.

As I indicated, I have great respect for those with whom I may disagree. But there is no more important policy we will debate this year that will have ramifications for decades and decades into the future than this energy bill. I am pleased we can finish our opening statements and go to amendments. I believe we will start on amendments tomorrow.

I thank the Senator from New Mexico and the Senator from Alaska for their earlier statements. I yield the floor.

The PRESIDING OFFICER. The Senator from New Mexico. I believe under a previous order the Senator from New Mexico is scheduled to address the Senate.

Mr. DOMENICI. Madam President, are there other Senators waiting to be heard? I will not be long; maybe 7 to 10 minutes. I thank the Chair for recognizing me.

Madam President, I am pleased we are finally beginning to debate a very serious subject and that we have put together a bill that is before us that perhaps after a couple of weeks of work will be known as the Senate's comprehensive energy policy for our Nation.

As President Bush has repeatedly said, this issue is a vital component of our homeland defense and our national security. Our economic and our environmental future is directly tied to our ability to produce ample supplies of clean, reliable energy. There can be no doubt that this great Nation, which has achieved the most significant heights in terms of material wealth and material well-being, has done that because we have been able, principally with our American private sector and competition, to supply the kinds of energy that are needed for this enormous growth that affects each and every family as they go about their daily lives, as they live in their homes which have heat, which have cool air in the summer, which have kitchens with all kinds of appliances to get done what they want for their families and enjoy life.

In a very real sense, America's future is tied to whether or not we are smart enough to do the right things or, in some instances, to do nothing so that we can continue to have this supply of energy that we need for our future.

Everyone knows that without an adequate supply of energy, our modern standard of living would plummet. Long-term recession and major job losses would be the norm. In fact, America would not be the America it is today in a decade or two if, for some reason, we did not have adequate energy supplies.

We saw the impact sometime back from oil shocks and their devastation to our economy, but remember that the shock in the 1970s occurred when we were little more than one-third dependent upon foreign nations for our oil. Yet we had an enormous shock. Now we are nearly 60 percent dependent on oil.

This underscores the importance, in this Senator's opinion, of moving forward with an energy plan that the President will be a partner in and that the President can sign, and with his intervention from time to time that we can altogether say we have produced an energy plan, bipartisan in nature, under the leadership of our President.

The policy that we have must set forth the principles, should be the guideline, for our debate on a comprehensive energy policy. That is the policy the President put before us.

Specifically, that policy noted that through conservation, more production, and renewed infrastructure for distribution, the country can overcome short-term energy shortages. In addition, we can build a new approach to energy that will continue to increase the quality of life in the United States and place us in the leadership role in improving the quality of life around the world.

Conservation and efficiency clearly must be part of this comprehensive energy bill. I appreciate the emphasis the President has put in his policy proposals on these aspects of energy policy in the United States, and I compliment Senator BINGAMAN. While I do not agree with everything in the bill with reference to conservation, with reference to saving of energy, the bill has some very good ideas in it and I hope some of them will still be in the bill when we finish our 10 days to 2-week debate.

Conservation has been absolutely vital to the United States over the past decades in controlling our thirst for energy. A lot of people do not know we have done some very significant things in the area of conservation—at least the numbers show that—so let me talk about those.

Since 1973, our economy has expanded 126 percent while our energy increase has been only 30 percent. That shows, in my opinion, we have taken conservation seriously and we have already done something about it. That does not mean we have solved all the problems in conservation, that we have opened all the windows that can be opened to conservation, but clearly we know how to do it.

I also appreciate the emphasis in the President's policy on environmental protection, and that obviously finds itself in this bill also.

I think we should remind ourselves and fellow Americans that we have accomplished a lot. For example, again, since 1970 our emission of air pollutants has decreased by 31 percent while our gross domestic product grew by 147 percent and the amount of vehicle miles driven has increased by 140 percent. When one looks at those kinds of numbers, they know the United States has done a reasonably good job to date. Even though there are many who are critical, it is obvious to this Senator that if we can do again in the next decade or two what we have done in the past decade or two with reference to these two areas, we will indeed have a very good energy policy and a policy that will carry us through in good stead.

Of course, there is more to environmental protections than just the quality of air, which I have mentioned in terms of where we were and what happened to our clean air. The policy the President proposes carefully notes that modern energy exploration and extraction technology can be done with minimal environmental impact. I hope those who will listen to the debate and ultimately participate by virtue of what they think their Senator should do and letting them know about it—I hope everybody knows that modern energy exploration and extraction technology can be done with minimal environmental impact.

I am proud some of these advanced techniques have been pioneered in the State of New Mexico and are now ready to help in the exploration of ANWR, if that be the will of the Congress and of the President.

Returning to our immediate task at hand, I am not at all pleased with the way this bill got to the Senate, but I will not repeat what has been repeatedly said by the Senator from Alaska. I think the issue that divides us, ANWR, should have been voted on in committee. I think the bill should have come with ANWR in or out, with the Senate having debated it in committee and having voted. I believe if that would have been the case, ANWR would be in the bill.

Now, which ANWR? Not the ANWR we talked about a couple of years ago. The ANWR that is spoken of in the House bill, where a very small area, 2,000 acres, will be used to determine whether or not there is sufficient oil to proceed. With the new technologies from that small location, we will be able to determine tremendous information with reference to what surrounds it and where, and we can determine as a nation and as a people if we should proceed.

I believe we should have produced a bill that had all of the major issues that are now in this bill discussed and debated in the committee. On the other hand, I believe Senator BINGAMAN, who comes with the first major bill I think he has managed—I would ask the Senator, is that correct?

Mr. BINGAMAN. Yes.

Mr. DOMENICI. He will probably be here for 2 or 3 weeks managing this bill. I believe those who know what happened will understand the Senator did put in a lot of ideas and a lot of proposals that came from our side of the aisle. To mention one, there are a

lot of proposals in this that are now reduced to statute form that have to do with nuclear energy for the future. They were in a bill that I introduced, along with the Senator from Louisiana who is sitting in the chair, and some of those were taken—in fact, most of them—and are in this bill that Senator BINGAMAN has brought.

I hope we will take all of the difficult issues that confront us and not dilly-dally, but get them debated and voted on. ANWR is among those. So is the CAFÉ standard. Let us get on with it. Let us proceed. Then the entire provision on electricity—there is a very elaborate provision that was put in by the distinguished Senator from New Mexico, Mr. BINGAMAN, and we will have to decide whether that is what we want, but at least the issue will be joined on another very important part of this bill. So I hope we will proceed on some areas.

It is pretty hard to make the Senate proceed with dispatch when Senators know they have an infinite amount of time on a bill. It will be hard to get them to bring amendments, but there will be plenty of them soon, and I look for myself to be participating, particularly on the nuclear part of this bill, during which time I will share a lot more with the Senate and those interested about why we should proceed with nuclear energy, at least its availability, as part of the mix in the United States for our future.

I yield the floor.

The PRESIDING OFFICER. The Senator from Louisiana.

Mr. BREAUX. Madam President, I thank the Chair for presiding in such an effective fashion.

I will take a minute in the general debate time to talk about the energy bill that is before the Senate.

No. 1, let me say I think we desperately need an energy bill. It sort of goes without saying, if there is anything both sides could probably agree with in what is otherwise likely to be a relatively contentious debate, certainly we can all agree on the fact we need an energy bill in this country.

The reasons are quite obvious. The United States prides itself in being a very strong and powerful nation, probably the most powerful nation on the face of the Earth, and perhaps the most powerful and strongest nation in the history of the world. When it comes to being self-sufficient in most aspects important to America, we are there. When it comes to the food we eat, Americans produce more than we can eat. In fact, we supply the food for a large number of countries around the world. We do very well. When it comes to medicine, America is the envy of the world. Pharmaceutical companies are the best. Medical technology and science is the best in this country. People come to America when they need very sophisticated, quality health care if they can find a way to get to our country.

So in most all of what we do, including education, we are indeed No. 1 in the world, except when it comes to energy. The facts are the opposite when it comes to energy. We are dependent on other countries to help run America, whether it is running automobiles on the highways, or the tractors in the fields, or launching a space vehicle with another satellite, or running a naval vessel, or running a tank, or supplying the men and women fighting in Afghanistan.

So much of the energy we use as a nation does not come from our country. It comes from foreign nations. I have seen the number as high as 58 percent of the energy we use in this country comes from foreign sources. Not only does it come from foreign sources, unfortunately it comes from countries on which we really cannot depend.

Our energy does not come from Canada. It does not come from people who have been allied with the United States in most difficult battles. Much of the energy supply comes from countries that themselves are not particularly the most stable countries in the world, which means the oil we get from them is not as dependable as it should be. Not only is it coming from countries in a part of the world that is one of the most dangerous, with the potential for those supplies being interrupted at a moment's notice because of some additional conflict in the Middle East, it comes from those countries through a process that, if it were engaged in in this country, people would go to the penitentiary.

What I mean by that is quite simple. The Organization of Petroleum Exporting Countries, OPEC, which supplies much of the energy and the oil we use to run America on a regular basis, has meetings at very nice places around the world. They bring in all of their oil ministers, they sit around the table, and guess what they do. They fix prices. They determine how much energy is going to cost America by sitting around the table and deciding how much they will produce. If they think the price is too low, they cut back their production, they raise the price and sell it to the United States and other countries around the world.

Between 55 and 60 percent of our oil comes from parts of the world that fix prices. If business men and women did that in this country, they could go to the penitentiary because it is illegal to fix prices. For years we have been comfortable with getting our energy from an organization that, if they operated in America, would go to jail.

It is, therefore, abundantly clear we need an energy policy that allows us to approach self-sufficiency.

I daresay if we imported half the food we ate in this country, people would be marching on the streets in our Nation's Capital saying that is unacceptable because food is critically important to this country's survival. That is, of course, true. But equally true is that critical to our Nation's survival and stability is the energy that we use. The energy that we use to engage in commerce is also critical to the security and the long-range future of the strongest Nation on Earth.

We can do no less than come up with an energy bill that addresses this most serious of problems. For the most part, I think that the energy bill before the committee is a movement in that direction. It can be improved. I hope, through the amendment process, it will be approved. We have to have a balanced energy package. We cannot be putting all of our eggs in one basket.

I remember in the not too distant past when we talked about trying to control the supply of drugs in this country. The popular phrase at that time was ''just say no.'' It sounded good, but it only addressed half of the equation. It addressed the half of the equation of the demand side. If we do not have a demand for drugs, we will solve the drug problem. It never really worked because we did not pay enough attention to the supply side. We did not do enough to try to stop the flow of drugs illegally into this country. The answer, obviously, was we had to do both. We had to control the demand in this country and we had to control the illegal supply to this country.

The same thing is true with regard to energy. We cannot just save our way out. We cannot just rely only on alternative fuels. I have voted for over $6 billion of assistance for alternative forms of energy. I believe in it. I think we have to have renewable energy. We have to have alternative kinds of energy. I hope we can develop wind as a source of energy, as well as solar power. We need to also look at the alternative of hydrogen cell fuel utilization. We have to look at waste material, whether it is chicken waste, swine waste, or whatever have you.

I guarantee you that in the foreseeable future we are not going to run the planes of this country and the tractors on the farms with chicken waste; it is not enough.

We also have to develop our traditional oil and gas resources. I have heard some of our colleagues and I have heard some of the environmental groups say we cannot drill our way out of this problem, as if we were drilling everywhere. Just the opposite is true. The chart I have shows the light orange areas where we can not drill. The entire east coast of the United States of America, either through congressional actions or moratoriums by Presidents, both Democrat and Republican Presidents, has said we are not going to look for oil and gas from the State of Maine down to the State of Florida. It is not quite ''drilling our way out of it.'' On the other side of the country, from the Canadian border and the State of Washington down to the country of Mexico, and all of the areas between, through moratoriums or acts of Congress, they have said: Don't do it here either.

All of this area is a potential source of oil and gas but because of the opposition of the locals along the west

coast of the United States, we are not looking, we are not searching, and we are not producing energy, much of which is consumed in their respective States.

The west coast of the United States is off limits, the east coast of the United States is off limits, and the eastern part of the Gulf of Mexico, where everybody seems to want to send the offshore production, off Louisiana or Texas, we will not worry; it is also off limits, as well.

This Congress just engaged in a very bitter battle over a proposal by President Clinton to lease sale 181 in the eastern Gulf of Mexico. President Clinton made a compromise in the sale by reducing the area. This administration reduced it by two thirds further, and we had a knock-down, drag-out battle on the floor of the Senate to eliminate it completely.

All of these areas are restricted: Don't do it here; not in my backyard; do it somewhere else. And we continue to import over 58 percent of our country.

We need an energy policy. It should be balanced. And balanced does not mean just wind, solar, and hydrogen cell use; it means a combination. There will be efforts by the Senator from Alaska to address some areas of interest in his State. I remember quite well back in 1980 when we were engaged in debate on the Alaskan lands bill—1978, 1980. I was a Member of the House of Representatives, chairman of the subcommittee that handled the Alaskan lands bill over in the House. We produced a bill which said we were going to set aside a very large area in the Arctic National Wildlife Refuge and we were not going to allow any exploration in that Arctic National Wildlife Refuge except for one particular area which was designated as section 1002 of that particular part of the Arctic wildlife refuge. We said the Arctic wildlife refuge would have about 19 million acres in it. We were not going to do production in those 19 million acres, but we were going to reserve 1.5 million acres in section 1002 of the bill.

I was there when we wrote it. It was our intent to say at that time, that one section of the 19 million acres we will look at and ask USGS to do seismic work and come back to the Congress and recommend whether we should proceed in that area or not. It is interesting. The New York Times and Washington Post are totally opposed to what the Senator from Alaska is attempting to do now. But do you know what they were saying when we did this back in the 1980s? The New York Times said:

> Alaska's Arctic National Wildlife Refuge . . . the most promising untapped source of oil in North America.
>
> . . . the total acreage affected by development would represent only a fraction of 1 percent of the North Slope wilderness.
>
> . . . But it is hard to see why absolutely pristine preservation of this remote wilderness should take precedence over the nation's energy needs.

That was in the New York Times in 1987 and 1988.

The Washington Post had an equally strong comment about what we were doing back in 1987 when we set up this process. They said:

> But that part of the Arctic coast—
>
> Meaning the coastal plains—
>
> is one of the bleakest, most remote places on this continent, and there is hardly any other place where drilling would have less impact on the surrounding life. . . .
>
> That oil could help ease the country's transition to lower oil supplies and . . . reduce its dependence on uncertain imports. Congress would be right to go ahead and, with all the conditions and environmental precautions that apply to Prudhoe Bay, see what is under the refuge's tundra.

That was in 1987. We are more dependent on foreign oil today than when they wrote those comments and remarks back in 1987. They were right then. They would be even more right if they said the same thing today. But all of a sudden, this area has become something that no one can even touch.

I understand when people say, ''Not in my backyard.'' I don't agree with it because it is a national program, not just for one State. But if you live in the neighborhood, you ought to be listened to more than if you don't live in the neighborhood where the activity is going to occur.

We are talking about activity in the Arctic National Wildlife Refuge, the small sliver up there of 2,000 acres. The Governor of the State, who is a Democrat, supports this activity, the two Senators who represent the State support the activity, and the Member of Congress in the House of Representatives who represents that area supports that activity. I would add the Native Alaskans who live in the area also support the activity.

So if you want to look to the people who are there and who are duly elected to represent the people, they enthusiastically support the amendment to be offered by the Senator from Alaska.

Maybe there is an environmental group sitting in a fancy office in San Francisco that thinks: If we take this position, by golly, do you know how many more members we can get? This will be our cause célèbre for the next 5 years. They love the issue, but I think their position is not correct.

We just can't do it all in Louisiana. We are going to do our part. We are going to do more than our part. We will continue to do so. This has to be something that all of us participate in as a nation. We have to have more savings. We have to have more alternative sources of fuel. We have to have more exotic ways of finding energy through wind and solar power.

But we also have to do what is necessary for a number of years to come in balancing that with traditional oil and gas supplies. You cannot say ''not here, not there, and not there,'' and solve the problem.

For those who say there is not that much up there, No. 1, no one knows how much is up there until we take a look, but the estimates we have from the USGS and the industry say there is a sufficient amount of supply up there to reduce our dependence and eliminate all our imports from Saudi Arabia for the next 30 years. They are the largest exporter of oil to the United States. We can eliminate their imports to this country for the next 30 years as a result of that activity. That, I suggest, is a very important part of our Nation's energy solution.

I hope we will have more time to debate this issue. I look forward enthusiastically to doing it. I think the Senator from the State where this would be involved has done an outstanding job of presenting this issue to this body, and I hope we listen to his recommendations.

I yield the floor.

The PRESIDING OFFICER. The Senator from Alaska.

Mr. MURKOWSKI. Madam President, I wonder if the Senator from Louisiana would comment briefly on the advancement of offshore drilling off the State of Louisiana and the Gulf of Mexico. I understand they are drilling in several thousand feet of water, and actually Federal leases are being sold in excess of that? That technology in deep water has risks, obviously, but the industry has an extraordinary record of success.

Mr. BREAUX. I thank the Senator for the question. I will be brief. I know my colleague is waiting to speak.

We have been doing offshore production in Louisiana in some of the most fragile areas for over 60 years. I would argue with anyone that this environment and this ecosystem down here is far more fragile than the ecosystem in the Arctic National Wildlife Refuge on the Coastal Plain. They have tundra grass that grows during the winter a couple of inches high.

We have, down here, an abundant supply of fin fish, of shrimp, of furbearing animals; it is a very fragile coastal wetland environment that is incredibly productive. Every single wildlife refuge in Louisiana has oil and gas production on it.

We have learned. We have learned by mistakes. We have benefited from science. Now the activity and the way it is conducted is the state-of-the-art technology. To say we have not learned a sufficient amount of information to be able to apply that to an ecosystem that is not nearly as complicated, not nearly as fragile, with much smaller numbers of wildlife in existence, as in this area, I think is to ignore the last 60 years of balanced development that we have experienced.

I think we ought to learn from those mistakes as well as learn from our positive accomplishment, and apply it in the area of the State of the Senator from Alaska.

Mr. MURKOWSKI. I wonder if the Senator will yield for another question. I notice there are some charts behind the Senator from Louisiana relative to what is going on in refuges. I think

there is a presumption among some that refuges are off limits to oil and gas, other exploration. My understanding is that chart shows the number of activities in various wetlands.

Mr. BREAUX. The wildlife refuge law was specifically set up by Congress to protect an area that had specific significance. But other activities that were compatible were to be allowed. You have to look at each wildlife refuge and determine whether that activity is compatible.

Is farming, grazing, or oil and gas development compatible with the purposes of the refuge? In my State of Louisiana, 12 wildlife refuges—Federal wildlife refuges and State wildlife refuges—have oil and gas production, in a much more fragile environment than is on the Coastal Plain of the Arctic National Wildlife Refuge. In addition, all these other States have had the same activity in their wildlife refuges and it has been determined that it has been compatible.

Do you take special precautions? Absolutely. But the point is, it is not a blanket prohibition. What is being asked today is a blanket prohibition, which I think is not justifiable, particularly when we have as strong a need as we do.

Mr. MURKOWSKI. I believe the other chart shows all the specific areas and refuges that are identified by State. It looks like Texas, Oklahoma—a number of States.

Mr. BREAUX. I think also these are national wildlife refuges. There are a number of State wildlife refuges that States have set aside that also have production on them as well.

Congress set this up, as the Senator well knows—I helped write section 1002 over in the other body—as an area that was going to be looked to for potential exploration. The remaining 19 million acres in the rest of the wildlife refuges in ANWR was going to be set aside for no activity. But Congress specifically made a decision: Look, we are going to reserve section 1002 for potential exploration and production. That is exactly what the Washington Post and the New York Times were commending Congress for at that time.

When President Jimmy Carter signed this bill, they knew that section had been set aside for the purposes of looking at potential oil and gas exploration. Now, all of a sudden, we come back and say: No, we just can't touch it. I think that is not being fair or balanced.

Mr. MURKOWSKI. I thank my friend from Louisiana.

The PRESIDING OFFICER. The Senator from Idaho is recognized.

Mr. CRAIG. Madam President, let me first and foremost associate myself with the words of the Senator from Louisiana. I think he has made such a very clear and profound case that with the technologies of today, with what we now know and what we have learned in the wetlands of Louisiana or Texas and on the northern edge of Alaska, without a doubt we can now explore and develop oil reserves with little to no environmental damage to the surrounding areas; that when those oil reserves have been finalized or produced out, we can close out and leave, and Mother Nature begins the healing process in a way that within a reasonable, if not short, period of time our presence there is hardly known.

I guess I would be remiss today if I didn't say I have looked forward to this time in the Senate for a long while. I had hoped that years ago we could have debated and developed a national energy policy. I am quite confident that the chairman of the committee, who is here on the floor, feels the same way as the ranking member. The Energy Committee, on which I have served for 12 years, has literally held hundreds of hearings and maybe thousands of hours in the taking of testimony as to the character of the national energy supply of our country—where it comes from, what it means, how it is used—everything from current supplies of hydrocarbons to electrical production, coal-fired, hydro, nuclear, on the thermal side of the electrical production, and certainly oil production.

We have done really, I believe, a phenomenally thorough job of looking at the overall perspective of energy for this country, both under Republican leadership and Democrat leadership. I think it would be fair to say that the staff of this committee and Members such as ourselves have developed a level of knowledge and expertise that is really substantial.

I say that in this context: That we are capable and should have been allowed to let that committee work, under the chairmanship of Senator BINGAMAN, to craft an energy bill to bring to the floor. But because of the unique politics of today and the unique politics of the energy debate that was denied, on October 9 the majority leader of the Senate communicated to the chairman of the Energy Committee, who is now here in the Chamber, that that committee was not to send forth an energy bill.

We can all speculate as to that conversation, but I think it has been relatively open as to what was said. Certainly the Senator from New Mexico was quoted roundly in the newspapers. I will not in any way attempt to interpret what he said or what he meant. But I know the Senator well enough to know that prior to October 9, prior to the August recess of last year, after we came back in September, and after September 11, in the conversations I had with the Senator I believed he was sincere and that it was his intent to produce an energy bill.

It has certainly been the intent of the ranking member, the Senator from Alaska, to do so, and to build a comprehensive bill that this Senate could look at, debate, and amend, but most importantly that would be assembled inside the expertise of that Energy Committee with both staff, Democrat and Republicans, and Members working on it, fine-tuning through the amendment process, and ultimately coming to do the floor for another bite of the energy apple, if you will, by other colleagues who are not on that committee.

We now know that didn't happen. I must tell you I believe it is historic in the fact that it didn't happen.

I have here in my hand the bill that was not written in committee and that was not written through the normal process—some 539 pages. As I came to the floor this morning to get a copy, I was told that portions of it were still being written or rewritten because somehow they had not quite gotten it right yet, or someone had made a change, or maybe it was believed if they made a little change they might pick up another vote or two in a given title of the bill. I don't know the reason.

But I do know that on the day when we began a historic debate on national energy policy for this Nation, I had not had a chance to read the bill in detail and it was still being written.

The 539-page bill we have before us S. 517. I am told it will have another 40 or 50 pages added. OK; 579 pages. The Democrat whip is on the floor. If he allows us to debate this for a couple or 3 weeks, we might get it read, understood, and possibly crafted now in the process which is legitimately a committee of the whole instead of a committee of the authorizing to deal with national energy policy.

Am I angered by that? Well, I would like to be. I guess I am more frustrated that in a representative republic and a democratic form of government in which we craft expertise and talent in the committees of authorization, it is simply and politically wiped away. The stroke of the hand of the majority leader of the Senate says you shall not because you cannot do it the way I want it done politically.

Before the August recess, if we had crafted a bill and worked on it and passed it out of the Energy Committee, it would have had ANWR in it. The votes were there. It would have been a bipartisan energy bill. The House acted before the August recess. They narrowed what we now call the footprint in the Arctic National Wildlife Refuge on which exploration can take place to meet the political and maybe the appropriate exploration needs for that area. They got their work done. We knew we could. I don't think anybody would dispute the fact that Democrats and Republicans were working to do so. The majority leader was phenomenally fearful that his political will could not be addressed.

Others on the other side of the aisle I think were quite confident that they would have the political opportunity of a lifetime to filibuster a bill with ANWR in it and to strut their environmental stuff.

But something happened after September 11. A debate that in the minds

of many Americans on national energy policy was somewhat esoteric, a future and generational economic exercise, had all of a sudden been refocused. Our Nation was at war, we had been attacked, and the American people asked: Are we so dependent upon a very unstable area of the world that overnight those sheiks could turn down their valves and up would go energy prices? Oh, my goodness, what would this country do? It was no longer this esoteric and generational economic debate. It was a debate over national energy policy in relation to national security as a policy. Somehow they came together. As the World Trade Center fell, energy policy and national security policy got melded together in the minds of most Americans.

For those who wanted to filibuster over here on the floor, I am quite sure they scurried over to the majority leader's office and said: Don't throw us in that political briar patch, because we have to honor our commitments, and we will somehow look anti-American if we stand up and deny the right to explore and develop an abundant energy supply for our country that may somehow make us less dependent upon the sheiks of the Middle East.

I do not know if that conversation happened. But I will bet it did.

As a result, on October 9 the lights went out in this Nation's Senate Energy Committee. No more were we to authorize a bill.

The lights went on in the back office of TOM DASCHLE because he was being charged. He charged himself and the chairman of the committee to send forth a bill. We have that bill on the floor at this moment. I haven't read it because I haven't had it. It is still being written. I can't read it. We will work to read it as soon as it is available. I understand a new copy is under print. This is the first book I have ever known of 539 pages in its second print in popularity and nobody has read it. That is strange. The New York Times Best Sellers List ought to try that one: You go to second print before the first one is read. That is the reality of what we are faced with. We are here now on the floor of the Senate, I would trust, in good will, to bring forth a national energy policy for this country, if we can, in a way that we can take to a conference between the House and the Senate, and then place that bill on the President's desk for him to sign and for this country and its economy to mobilize around.

One of first opportunities I had to engage with President George Bush was when he was President-elect George Bush, right after the issue in Florida had been solved. He was here on Capitol Hill to visit with all of us. We met in then-Majority Leader TRENT LOTT's office. He talked about his campaign promises: A promise to bring forth a comprehensive education bill for our country; a promise to reform and cut taxes to stimulate our economy and to affect all segments of it in a positive and beneficial way. He talked about national security and a variety of other issues. But he stopped midway through that conversation. He said: Do you know what is really important for our country right now? It is a national energy policy. The lights have gone out in California, we are buying oil from a very unstable region of the world, and gas prices are high. I believe a national energy policy is critical for this country.

That was President George Bush speaking, and I paraphrase.

He said: I am going to assign the Vice President that responsibility. We will assemble a governmental task force, and we will craft a policy and get it to the Hill as quickly as we can, and see if we can't work with you here in the Senate and in the House to develop an overall comprehensive policy.

It was one of this President's priorities, and he acted accordingly. It should have been a priority in the Senate. It was a high priority in the House. But here, months later than it should be, after the authorizing committee had been turned away and its lights turned out, we are now debating a bill that was a priority for the President, that was our Nation's high priority, and a bill that many of us have not yet read or understand all of the nuances or policy proclamations within it. That is the reality of what we are dealing with.

I hope that as we debate this issue, and as we amend it over the course of the next several weeks, we will deal with natural gas exploration and development on public lands across this country, and that we open up Federal lands to do that and put more of our own gas into the pipeline as we talk about bringing gas down from Alaska where it is currently being turned under, so that as we move toward other forms of electrical generation with gas turbines that meet the clean air standards of our country, we will have an abundance of natural gas to do that at reasonable prices.

I hope this legislation will have that. If it does not, there will be amendments to assure that the pipeline infrastructure that is necessary to deliver that resource to the Nation will be there, be available, or the incentives to do so will be allowed.

I hope that when we deal with infrastructure issues, we are able to talk about electrical transmission and RTOs and regional ways of transporting electrons from point A to point B, from New Mexico to Idaho, if that is the wish of the generator and the user.

As the chairman knows, and as the ranking member knows, some months ago we had a transmission expert before us. I think his words were something like this: The electrical transmission lines of this country today are like a bunch of country roads that every so often meet.

That was part of the problem in California when we, from Idaho, were helping supply California to keep its lights on. You just simply could not get energy there, or if you got it to California, then it plugged up along the way as it headed from north to south or south to north. So pipelines, transmission lines, infrastructure become an important part of all of that issue.

For a good number of years I have worked on the issue of hydro relicensing. In the Pacific Northwest, we are very fortunate to have a dominant amount of our electrical generation by hydroelectric, or water, dams. We know much of that has to be relicensed over the next several decades, and that licensing process is broken or cumbersome or unpredictable and very costly.

While we are trying to incorporate all of the concerns and issues of many different groups in retrofitting and modernizing 40- and 50-year-old structures, because the world around them and the wishes of that world have changed dramatically, it should not take 5 to 10 years and millions and millions of dollars and a reduction of capacity or productivity of that unit to get it relicensed.

We want to answer and adjust to the environmental concerns. At the same time, it ought to be our desire to make that unit more efficient, not less so, with new turbines and retrofits. Yet we struggle under that relicensing.

I have worked very closely with the chairman. We are awfully close to getting something, but I am not going to add more problems to the current problem. If we cannot get there, and the answer is to make it more difficult or more complicated, I am simply going to step back and say what we have got is what we are going to have to have.

If the country wants to keep on down this track of relicensing under phenomenally expensive and cumbersome processes, tragically enough, so be it. I hope, though, we can find a way out of this, to streamline it, improve it, make it more predictable, balanced, and hopefully, less costly.

Nuclear energy is 20 percent of our current electrical production in this country. If we believe in climate change, if we believe there is an environmental problem out there and somehow the gases that are produced by the energy sources today are helping complicate or exacerbate that problem of climate change, then we ought to be for the cleanest source of energy possible to fill up that energy basket that is now in deficit and growing more empty.

I believe one way of doing that is through nuclear energy and creating new prototype reactors that by public perception and reality are safer, more productive, less costly to build, and less costly to operate. We ought to be about doing that. I think we are going to reauthorize the Price-Anderson Act that deals with the liability of the development and the operation of those facilities. That is something we ought to do.

We ought to be encouraging all forms because my guess is a pretty safe one:

That if we want an increasingly cleaner environment, probably over the next decade or two nuclear energy, as a percentage of the total supply, should not be 20 percent, it ought to be 25 or 30 percent. It most assuredly ought not drop below where it is. It ought to advance well beyond where it is.

I think most realistic thinkers would recognize the importance of energy as it relates to nuclear and the cleanness of that form of generation. We ought to apply the greatest technology we have to that.

I mentioned, in the context of nuclear energy, climate change. Senator HAGEL and I have worked for the last 4 or 5 years on that. So has the Senator from New Mexico. So has the Senator from Alaska. Many have become involved in that debate. The two Senators from Oklahoma have been involved in it. Why? Because we do not want a hysterical policy that shuts the world down in panic. We want a policy that would allow us to grow and produce and prosper while making our world cleaner.

The legislation the Senator from Nebraska and I have crafted, that now in part has been accepted by the President as some of his forward thinking national climate change policy, ought to be incorporated in this bill, ought to be a full part of it. We are working to get there. Frankly, it is possible to get there.

In conclusion, I began to debate energy issues well over a decade ago. I have been involved on energy issues in the Senate for 12 years. I am embarrassed to say that during that period of time we have not built a comprehensive energy policy. I used to select different forms of energy and suggest that this one ought not go forward, but maybe this one should. I must say, I am no longer there, not at all. I believe we ought to be investing in all forms of energy and all forms of conservation.

We ought to give the public a choice between green power or other power. Let them decide in the marketplace if that is the prudent selection for their use. Clearly we ought to have as much power as we can produce, recognizing that by definition, hydrocarbon use is on the decline. I do believe, most sincerely, my grandchildren will be driving electric cars. And they will be highly efficient and very capable of traveling long distances. I also know they will have to have a place to plug them in to put storage of electricity in the battery, or the hydrogen fuel cell that will be built within the car that will drive the electric motors that propel the car. That in itself is a hydrocarbon.

The cycle is not yet complete because we have not used all of our resources to produce those kinds of energies. Yes, I voted for a lot of money in the last decade for new technology. I will vote for more. I will vote for tax credits and incentives for wind and ethanol and biomass because our energy basket ought to be full and running over instead of sitting here and nit-picking and playing the political game of a little of this but not this; we can't do this, but we ought to do this; not in my backyard but in somebody else's backyard. Shame on us for that attitude.

It is the consumer, it is the taxpayer, it is the economy itself, it is the very jobs that drive the workforce of this country that are at stake.

We ought not be so selective. We want an abundant energy supply, and we ought to be prudent in the development of the policy that drives it and produces it.

What I am telling my colleagues is, I am prepared to vote for it all: Lots of conservation, LIHEAP, lots of new technology, the tax credits necessary to drive it, exploring ANWR in Alaska, exploring other public lands in our Nation. I don't want to go home and say that the Congress got bogged down in politics and failed, and your gas bill is going to double over the decade or triple or quadruple, and your energy costs are going to become an ever-increasing part of your household or business budget because politically we didn't get the job done.

Shame on us if that is the case.

Our job is to be responsible in producing a quality, energy policy for the Nation, not the political, environmental nit-picking that is going on at this moment.

I hope the real job that is done here is to offer the amendments to craft a bill that will produce something that is phenomenally clean, abundant and allows our technology to lead the rest of the world into a clean energy environment that is abundant for all and inexpensive for everyone along with it.

I yield the floor.

The PRESIDING OFFICER (Mr. CORZINE). The Senator from Nevada.

Mr. REID. Mr. President, I did not mean in any way to speed the Senator from Idaho up on his statement. I wanted to announce on behalf of the majority leader there will be no votes tonight.

I also ask unanimous consent that Senator DURBIN now be recognized and, following that, Senator BURNS be recognized.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Illinois.

Mr. DURBIN. Mr. President, I thank the majority whip from Nevada for his unanimous consent request. I appreciate the opportunity to be here to speak on this issue which is so critical to the future of America.

Let me begin by commending the Senator from New Mexico, Mr. BINGAMAN, as well as our majority leader, Senator DASCHLE, for bringing this bill to the floor and keeping a promise that they would. We have been challenged for more than a year by the Bush administration and by Republicans in the Senate to bring an energy bill forward. Senator DASCHLE made it clear he would do that. But for a delay in the previous bill on election reform, it might have taken place as early as last week. He certainly kept his word.

I thought it was interesting that some of those from the other side of the aisle came to the Chamber and actually criticized the process. If I understand their argument, they think we brought it to the floor too fast. They think it should have gone through committee, should have been subject to a lot of amendments and changes. Quite honestly, if you look at the precedent of what has happened in the Senate, Senators DASCHLE and BINGAMAN have brought this bill to the Senate in the same manner the Republican leadership did 2 years ago.

They have given ample opportunity for amendments and debate. That is the way it should be. I have always felt that in a legislative body, you give it your best argument and present it to your colleagues and have a vote and move on, ultimately to final passage. I hope that is what happens with this important bill.

This is the fourth time we have debated energy policy in America since 1973. The last time was 10 years ago. When you look at what has happened to us in recent times, you can understand how timely this debate is: We faced spikes in oil prices in the spring of 1999 due to an OPEC decision to reduce production; the winter of 1999–2000 home heating problems caused by a combination of unexpected weather, depleted supply, and rising costs; gasoline price spikes in the Midwest in the summer of 2000; rolling blackouts in California in early 2001 marked the first deliberate energy cutoff since World War II.

These events were set against the backdrop of strong economic growth in the mid to late 1990s; increases in energy consumption to keep this economy moving forward; deregulation; advances in efficiency; and evolving defense and foreign policy.

As we debate this issue, our attention is focused to that part of the world again that is the source of a great portion of our energy. We have to understand that this debate is taking place in the context of an American dependence on foreign oil. I believe it is naive to think that in the near term we will be completely independent when it comes to energy sources. I wish I could say otherwise. Even with our best efforts, we are going to have to rely on some imported fuel.

I hope we can make progress in this bill in moving us forward toward less dependence on foreign energy sources. The way we approach that is the crux of this debate.

On the other side, the Bush administration and many Republicans—not all but many—in Congress believe that production is the way to answer this. They think if we can just find sources of production that are adequate, we can take care of America's future energy needs. I won't quarrel with the math, but I will quarrel with the policy.

I do have to question whether or not we want to embark on a policy that really focuses on the production of energy as the foundation and cornerstone of our energy policy. That, in my point of view, is thinking that dates back to the last century and before. We should be thinking in smarter terms about ways to not only create energy but to conserve energy in a fashion that is not only going to give us energy, move us toward energy independence, but is also kind to our environment.

That is the second half of this equation. It is not just about our economy and energy as the fuel for the economy, but the impact of our use of energy on the environment we live in, the air we breathe, the streams and rivers that may be polluted, as well as the whole question of whether or not we are going to for once invade some wilderness areas to try to drill for oil and gas.

Let me summarize what the bill says, as has been mentioned in the course of the debate. It tries to address ensuring adequate and affordable supplies of energy from renewable sources as well as oil, gas, coal, and nuclear. This element of the bill is important to speak about for a moment.

This bill creates goals and incentives to increase the amount of U.S. electricity produced from renewable energy sources.

This is an area of great potential in the United States. We are seeing, for example, alternative and renewable fuels being used to a greater extent in some parts of our country than others. California is an example. I am told that 12 to 13 percent of the electricity generated in California comes from renewable sources. Those include a lot of things—geothermal, wind power, and others. We should really embark, as part of this bill, on a national policy of encouraging these renewable sources. They not only lessen dependence on foreign energy source, but they are also kind to the environment. Solar, wind, geothermal, and biomass are all mentioned in the bill as avenues for us to explore in the use of renewable energy sources. We also need a renewable portfolio standard to increase the amount of renewable energy provided by electricity retailers.

Let me show you a chart that talks about renewable sources for electricity consumption. If we do nothing, the lower line here represents the current renewable sources in America as a per average total. You see it is slightly more than 2.5 percent. This bill moves us forward. By 2020, we are at least over 10 percent. We will debate, in the course of this bill, an amendment by Senator JEFFORDS which would even have us at a higher level as a commitment to renewable energy sources. This makes sense, it is an important debate, and it will change our way of approaching energy—but change it in an environmentally sensible way.

We also need to expand the amount of ethanol and biodiesel used in motor vehicles. This bill does it. It triples the amount that is going to be used in America during the life of the bill. That is a big issue where I live because, living in the farm belt and being in an area that is considered, I guess, the ''OPEC of ethanol,'' we really have major ethanol production. But the good news is there are other areas in the country that are currently opening up ethanol production facilities.

Ethanol, of course is an alcohol fuel derived from grain, primarily from corn. It is a fuel that is kind to the environment. It reduces pollution and helps our farmers. I do have some bias, representing a farm State such as Illinois, but more demand for ethanol is going to create higher farm prices for corn and reduce the need for Federal expenditures in the farm program. It is a winning proposition.

I am really proud that this bill focuses on ethanol and biodiesel and makes a serious national commitment to expanding it to 5 billion gallons by 2012. We expedite the construction of the pipeline to bring natural gas from Alaska to the lower 48. This doesn't involve the Arctic National Wildlife Refuge (ANWR). It is a pipeline already in areas that have been vetted to be economically acceptable, environmentally acceptable, and it doesn't go into the wilderness areas. We increase funds to speed up the permitting of new domestic oil and gas production.

I have heard executives from oil companies tell me: You don't need to go to ANWR; there are plenty of places that are environmentally sound in the United States to turn to. ANWR is in this debate because a lot of companies have invested a lot of money in ANWR. They are being protected by some in this Chamber who want to make sure they capitalize on that investment. We ought to think twice about that, and I will address that in a moment.

The bill extends permanent authority to fill and operate the Strategic Petroleum Reserve. This is a reserve of petroleum that is available in emergency circumstances to the United States. I think it is important to fill it and have it on hand when needed. You never know when you are going to face an interruption in supply. The bill also invests in Research and Development in all fuels. That is when we exhaust the discussion of ensuring the diversity of energy supplies.

We now move to the question of improving efficiency and productivity of energy transmission and use. I learned, by my experience in my home area, in central Illinois, how important the national grid is to electricity. There is a lot that needs to be done to upgrade this grid and make certain it is really national in scope, so consumers can know they have reliable sources for energy supplies.

This bill—this legislation on the Democratic side—protects reliability of the interstate electric grid and removes barriers to adding to the electric infrastructure. It will provide consumers with more transparent information and better information on energy choices. It requires higher fuel efficiency in future Federal purchases of automobiles and other vehicles and greater energy efficiency in Federal buildings. It helps State and local governments save energy in public schools and public housing. It sets new efficiency standards for commercial and consumer products, including an increase in central air-conditioning efficiency by 30 percent, and enhancements to the Energy Star Program, to improve product label information. It increases funding for the Low-Income Home Energy Assistance Program (LIHEAP) to help low-income families make their homes more energy efficient.

I have seen the importance of this program firsthand. I just left Chicago, which I am proud to represent in the Senate, where the weather was cold—zero degrees on Sunday night, with the wind chill bringing it down below zero by about 22 degrees. I thought of all the people who are living in homes that are not adequately heated. I have visited some of those homes and have seen people struggling to keep their babies warm in a frigid atmosphere. LIHEAP provides the basic necessities of home heating and cooling. It also helps low-income families make homes more energy efficient, and it is particularly important for senior citizens.

Other things are part of this bill, but I want to move to one particular element that I think is very important for us to discuss, and that is the Corporate Average Fuel Economy (CAFÉ) standard. I was visited earlier today by one of my close friends in the labor movement, who came to me and urged that I oppose any increase in the fuel efficiency standards, fuel economy standards for automobiles and other vehicles in America. I really struggled in trying to understand his point of view, but to put it in the context of what I think is an important element in this debate, the way I see it is this. In 1975, we made a decision in America to basically double the fuel efficiency of cars to 27.5 miles per gallon, and to do that by 1985—a 10-year project.

At the time it was proposed—and I have seen quotes from the debate—automobile manufacturers said it was physically impossible, it could not be achieved without laying off auto workers across America, and that technologically we were going to sacrifice the safety of cars in an effort to try to put this new fuel economy standard in place.

Well, we did it. We did it by 1985, and we are better off for it. Think of the level of our dependence on energy today had we not initiated that discussion in 1975.

But since 1985, we have been absolutely stuck in the mud when it comes to improving these fuel economy standards. If we don't take the issue of fuel efficiency seriously as part of this energy debate, Congress should not be

taken seriously, because if we cannot improve the efficiency of vehicles in our country, frankly, all of the technology we have demonstrated throughout our history is for nothing. I think we have the capacity to do it.

I have to tell you that it is some source of embarrassment to me that, time and again, we are two steps behind automobile manufacturers overseas—particularly those in Japan—when it comes to new technology for automobiles and other vehicles, to make them cleaner and safer. There is absolutely no excuse. We have the greatest engineers in the world. We have great minds in Detroit and other places. Why are we always two steps behind? Why would Honda and Toyota be the first companies to the market with these hybrid automobiles that offer 60 to 70 miles per gallon, while Detroit is still in a concept car and they hope by next year they might be able to offer the first vehicle?

During the Clinton administration, President Clinton and Vice President Gore said: We are prepared to basically look the other way on antitrust enforcement to give the Big Three automakers a chance to sit down, work together, and come out with a fuel-efficient car. This was the common complaint: Oh, we could do it, but as soon as we talked to one another, the Department of Justice would be on our backs. The Clinton-Gore administration said: Have no fear. Move forward.

Nothing happened. We sit here today still looking for that breakthrough in automobile technology. Quite honestly, this bill is going to move us forward in terms of fuel economy. I am going to support it. I hope to explain to my friends in labor as well as those working for the Big Three that if we don't include fuel efficiency and fuel economy in this bill, this bill is not worth the effort. If we don't do this, we are going to find ourselves continuing to be dependent on finding new sources of fossil fuels around the world and in the United States.

We are conceding the fact we are going to be so hungry for oil to fuel these gas guzzler cars on the highways that we are prepared to drill almost anywhere. Already some are saying: Let's go into wilderness areas in Alaska; we have no place else to turn. What is next? The Mall? Central Park? Yosemite?

Frankly, we have to look at our responsibility in this country as part of this debate. It is a mistake to believe we can sit here and tell the American people that we can be more fuel efficient and have a sensible energy policy that will not involve their commitment and their sacrifice.

If we look at the highways of America 10 years from now and see cars like today, or even bigger vehicles, we have failed. We have failed because, frankly, we are conceding that there is absolutely nothing we can do in energy policy that will change the habits and tastes of Americans and move us toward a more responsible course.

In this time when we are waging war and Americans are being killed overseas because of terrorism, when we are focusing on the Middle East and its instability, is it too much to ask the people of this country to join us in a collective discussion and debate about what we can do as individuals, businesses, and families to come up with more efficient vehicles? I do not think it is.

Americans are prepared to sacrifice with the right leadership if they believe the goals are right and honest. I believe these goals are. More fuel efficiency for our vehicles means less dependence on foreign energy sources and less pollution.

Let me give a comparison about what conservation means as opposed to some of the alternatives that have been suggested. This is a chart which I think tells an interesting story. Take a look at what this bill does in terms of saving millions of barrels per day of petroleum. In the industrial and home efficiency savings of this bill, look at the savings from the current debate time, 2002, to the year 2030. There is a substantial increase in the industrial and home efficiency savings area that brings us ultimately to a savings of millions of barrels per day. The largest part is in vehicle savings.

In other words, taking the basic elements of this bill, these are the millions of barrels we will save per day with the fuel efficiency of the Bingaman-Daschle bill. There are those who say we do not need to do that; what we really need to do is drill in the Arctic National Wildlife Refuge, a wilderness area.

Mr. MURKOWSKI. Mr. President, I wonder if my friend will yield for a question.

Mr. DURBIN. I will be happy to yield for a question in a moment.

This chart indicates what we can hope to bring out of the Arctic National Wildlife Refuge. The chart may be sitting too low to see because it is way down on the chart. I want to make sure that those who are following this debate with rapt attention notice that on the amount we hope to glean from the Arctic National Wildlife Refuge, even if we voted today to start it, we will not see the first barrel of oil coming out of there until 2009. Look at how little comes out. This larger amount is what we can achieve with efficiency. This smaller amount is what we are debating in a wilderness and refuge area. We should make this commitment part of our energy policy. Why do we have to turn to an area which we declared, as part of our national policy, would remain a wilderness as God created it, bring in the trucks and all of the pipelines and everything that is necessary, and risk the loss of wildlife and changing the face of that area forever, when, in fact, if we take a responsible course on vehicle fuel efficiency, as well as industrial and home efficiency, the savings far outweigh what we could possibly glean from this Arctic National Wildlife Refuge?

I will be happy to yield to my colleague from Alaska.

Mr. MURKOWSKI. Mr. President, I noted the reference by the Senator from Illinois several times to the issue of wilderness. I wonder if he understands the status of the area under consideration in the amendment that will be offered by various Members relative to opening up ANWR.

Mr. DURBIN. I certainly have heard many descriptions. I will let my colleague from Alaska explain it.

Mr. MURKOWSKI. Let me refer to the statements that have been made by the Senator from Illinois relative to this being a wilderness, to this being a refuge. Clearly, there are distinctions. I would stand with the Senator from Illinois if there were any effort to open oil and gas exploration in wilderness areas of my State.

The Senator from Illinois indicated there were proposals to even go into the wilderness in Alaska. I know of no such proposals to drill oil and gas in wilderness. As a matter of fact, the 1002 area is a refuge. As the Senator from Illinois knows, we have drilling in numerous refuges. We have about 41 refuges in the United States where we drill for oil and gas. They are in virtually every State. As a matter of fact, I think there are one or two in Illinois.

I encourage my friend from Illinois to not mix metaphors because wilderness is wilderness. We do not drill in wilderness areas. We are not proposing we drill in wilderness areas. The 1002 area is not a wilderness. It was set aside by Congress for specific action.

I am sure my friend from Illinois knows that ANWR is about the size of the State of South Carolina. I am sure he knows there are 8.5 million acres of the 19 million acres that are designated as wilderness, but that is not in the area that is proposed to be opened for competitive leasing. That is 1.5 million acres in the 1002 area.

I am sure my friend is also aware that out of the 19 million acres, 9 million acres have been set aside in a separate refuge that is managed as a wilderness which is not included.

It is important that we recognize realities and not mix metaphors because the Arctic Coastal Plain is certainly not the last remaining wilderness in Alaska.

We have 56 million acres designated wilderness that we defend. So please be careful when you mix these metaphors because if you had been up there to look at it, you would have a different appreciation.

Mr. DURBIN. I would like to reclaim my time.

The PRESIDING OFFICER. The Senator from Illinois has the floor.

Mr. DURBIN. I think I have been generous in allowing the Senator to interrupt this presentation.

Mr. MURKOWSKI. I was not interrupting. I was responding and asking a question about metaphors. I think we should be very careful not to mislead the public.

Mr. DURBIN. It is very gracious of the Senator from Alaska to help me with my metaphors. I thank the Senator from Alaska. I stand corrected. The use of the word ''wilderness'' is inappropriate. It is the Arctic National Wildlife Refuge.

I do believe it is somewhat specious to argue it is only the size of South Carolina. Three Mile Island was only the size of this Capitol Building, and when you look at some of the oil spills I have seen, when I went up to see Prince Edward Sound, the size of that tanker may not have been much longer than half the size of this building, but what it did when it ruptured caused damage far beyond the size of the tanker.

When the Senator says it is just the size of South Carolina, I think, frankly, that understates the potential damage which could be done to the environment and to the wildlife if we are not careful.

Plus, I have to tell my colleagues, I believe it is shortsighted and it is not the wisest and most prudent approach to say that if we are going to have any kind of energy independence, then we have to drill in a national wildlife refuge in Alaska.

There are so many other activities we can do by way of conservation, efficiency, and drilling for oil and gas in environmentally sound areas that would absolve us from getting into the controversy of going into this wildlife refuge. I think, frankly, that is a wrongheaded approach. I disagree with the Senator from Alaska. I was happy to yield him the time, and he made his point.

In concluding this presentation, let me say the following: I hope when we get into this debate about fuel economy and fuel efficiency standards that we can find a way to deal with some of the more vexing aspects of the problem. Part of this has to do with credits we created years ago rewarding some automobile manufacturers for the types of vehicles they made and not rewarding others.

The building up of these credits has created a secondary, but very important, argument which should be addressed as part of this energy policy debate.

What I think we should require of all manufacturers that want to sell in the United States, domestic and foreign, is that they demonstrate a real commitment to improved fuel efficiency of their vehicles.

Recently, one of the engineers in the city of Chicago at the Illinois Institute of Technology wrote an article for the Chicago Tribune in which he had a few thoughts about the whole discussion of hydrogen-fuel-cell-powered vehicles. It is an interesting concept, he said, but at least 10 years away, maybe longer; we should continue to explore, but, frankly, do not hold it out as the Holy Grail; and that just because of the possibility of hydrogen-fueled cars, we really should not avoid addressing fuel efficiency and economy in today's automobiles.

He said at the end of the article: I hope the Senators from Illinois read this article and give me a call.

So I did. I said to the Professor: What is it you would suggest we do?

He said: There are things that can and should be done now to improve the fuel efficiency of vehicles. Why Detroit and other manufacturers are holding back on it, I do not understand.

He gave us one illustration. A larger battery in a vehicle allows one to turn to more electronic equipment in that vehicle as opposed to mechanical and hydraulic, which takes weight off the vehicle but still performs the valuable function. That seems sensible to me.

He says a heavier battery where there is electronic-powered brakes, for example, could save 2 miles per gallon, and you think, well, that is a pretty sensible thing to do.

He also said looking to newer materials that are safe materials that can be used in vehicles that do not add to weight but still provide protection, all of these things have to be on the table. They will not be taken seriously by Detroit unless and until we are serious about fuel economy standards. We will continue to play the role of second best in this automobile technology race unless and until Congress has the willingness and the political courage to step up and say to Detroit and all automobile and truck manufacturers across America: We have to do better.

When I asked one of the critics of this bill today what do they think we can achieve, what is realistic when it comes to fuel economy, he said: I think we can achieve a 10-percent improvement in fuel economy by the year 2019.

I said: So we could go from 27½ miles per gallon to perhaps 31 miles per gallon by the year 2019?

Yes, he said.

So I said: From 1985 to 2019 the best we could achieve was 3 miles per gallon?

I do not buy that. I do not believe that. I really believe we proved between 1975 and 1985 that given the right incentives, we can do a lot better than that, and I sincerely hope those who are involved in this debate will not view it as a political and legal struggle but as a technological challenge, because once challenged, I think our scientists and engineers can rise to that occasion.

So I commend my colleague from New Mexico, Senator BINGAMAN, for his leadership on this bill, as well as the majority leader, Senator DASCHLE, for joining him in this effort. I look forward to this debate because I believe it is timely. And I am hoping that as a result of it we will have a reliable, stable supply of energy; we will have conservation policies that make sense for our future; we will move toward renewable fuels which have such great potential; we will find ourselves using alternative fuels that, frankly, have been valuable to us and can be used even more. That is part of a balanced debate that does not have us drilling in wildlife refuges—not wilderness, as Senator MURKOWSKI has corrected me—and areas that, frankly, should be the last place, not the first place, we turn to when we are desperate for energy, especially when we have a lot of options we can consider in terms of energy efficiency.

I yield the floor.

Mr. BINGAMAN. Mr. President, I know the next order of business is to hear from the Senator from Montana, Mr. BURNS. I do not know if he is available to give his statement at this point. I think possibly we should go into a quorum call and try to locate him.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MURKOWSKI. Mr. President, I am not going to speak long, but I want to make a point to my colleagues, and particularly their staffs, that there are certain aspects of this legislation that are very technical and certain aspects reflect on the knowledge that obviously we have in our own States, and I respect that. I want to put my colleagues on notice we are going to follow the statements very closely and we will respond in rebuttal to obvious inaccuracies relative to statements that are being made, and that is in the spirit of simply accuracy and factual information that I think is necessary to portray and project indeed the importance of having factual information before the Members of this body as we deliberate the bill.

I see the Senator from Montana. If there is no objection from my friend from New Mexico, I yield to the Senator from Montana.

The PRESIDING OFFICER. The Senator from Montana is recognized under the previous order.

Mr. BURNS. Mr. President, I thank my good friend from Alaska, and I thank the chairman of the Energy and Natural Resources Committee for the time.

This is a great day. I think this is a good day. We have finally started talking about legislation we hope will facilitate a policy to make us a little more efficient but also increase supply, especially in case of emergency, and to keep this economy rolling. The bill we have today is 433 pages long, and it is written in legalese that most people, including me, do not easily understand.

As complicated as this bill is and as complicated as this process is, the reality is simple: This country needs a comprehensive energy policy.

Last fall, this country was shaken to its foundation. That experience has made each of us stand back and make

decisions about what is really important in our lives. As I have traveled across this country and in my home State of Montana, I keep hearing the same thing over again. Everybody in America wants to protect their family, they want to provide a safe and secure living environment, they want to protect their loved ones from harm.

There is one thing that is undisputable. I represent an energy State. We have been in the production of energy for a long time in Montana so we know a little something about it. There is also something else that is indisputable and that is that a comprehensive energy policy is absolutely paramount to American freedom. Let me put it this way: Energy security is economic security is national security.

If that magic word that goes across our television screen and across our mind is ''security,'' we cannot separate those three. Energy security is economic security is national security, so that the decisions we make here in the Senate will affect and direct the lives of every single American, without exception. The policy we set here on the Senate floor should ensure that energy is affordable, and that it is abundant. Affordable energy means businesses stay open and businesses prosper and people keep working. It means senior citizens who are on fixed incomes are able to pay their electricity bill at the end of the month without having to give up something else. It means someone can fill up their car with gas and drive their kids to school; fill up a truck and deliver goods across the country without breaking the bank; and, yes, to my State, crank up the combines, harvest a crop and put another one in, without fearing the repercussions of high fuel prices.

Every one of us will be affected no matter how basic the level. So we have to answer a lot of questions. How do we get dependable, affordable supplies of energy? That will be the focus of this debate, and the policy that carries us not through my generation but also the next generation and the next. And that is about the time we will have another policy change because technology and circumstances will change.

We have heard some of my colleagues claim Americans use too much energy, that we are greedy, that we use more than our fair share of the world's supply of energy. Would those same people stand up and argue that the United States produces more than its fair share of goods and services? Would they say we have an oversupply of American ingenuity?

Are we producing more computers, more cars, more agricultural goods than we should? I don't think so. I don't think the hard-working people who produce those goods think so either. We can do that because we are good at it and because we have used our energy with the best conservation technology known until this date.

Let's go one step beyond the economic security that affordable energy provides. Think about the security it provides this country when we improve our ability to produce different kinds of energy domestically. For example, this country buys 56 percent of its oil from other countries. Think back to the 1970s when we had the lines at the gas stations. Then it was around 35 or 36 percent from foreign countries. I don't like that kind of vulnerability. Much of that oil is produced from countries or producers that have very honest intentions, but, I will remind Americans, not all of them and not all of it.

Every drop of oil we produce domestically is one that we do not buy from Saddam Hussein. Every barrel bought from a rogue nation could mean a bomb built to hurt this country. I think it is about time we turn off the spigot of terrorist oil.

In this debate we will start talking about the Alaska National Wildlife Refuge. While at times the point may be confused, like in the colloquy that just preceded me—ANWR was a wildlife refuge created by law and that law gave express permission or grant to drill within parts of it. I can think of no other public land that was created with that express intention and law.

I would like to point out that the debate over ANWR will boil down to whether we open up 2,000 acres for exploration in Alaska. It will be examined. It will be turned inside and out, over and over again. We will debate this a long time.

I say to my good friend from Oklahoma, whose State is an energy producer like my state of Montana, that since 1997, in my State alone, the Federal Government and the executive branch have managed to shut off 727,000 acres from gas and oil development in Montana in two different decisions. There was no congressional discussion either time.

I agree with open debate and I am glad to be a part of this process, but I wonder why we only get to do it when we want to open Federal land, and not when we shut it off. Why is it that a midlevel manager in the Forest Service can make the decision to close 350,000 acres, and we don't hear a whimper or whisper on the Senate Floor.

Because of a decision made in a federal bureaucracy or through executive order, it has been decided we are going to take that land out of production. That denies my State the ability to produce energy for a country that really needs it, and the jobs it provides and the revenue it provides to my State to build schools, build roads, provide government services.

Of course, this debate will extend beyond domestic oil and gas production, and it should. We are developing excellent technology. We are tapping resources to create energy from new sources. I heard mention today about renewables. They want to use thermal activity.

We live next to an area that has more thermal activity than any place in our country: Yellowstone Park. There is thermal potential all the way around it. You just try to develop it. It cannot be done because you have to cross federal land to get there, which makes absolutely no sense.

We will talk about fuel cells. We will talk about biomass. We will talk about ethanol. We will talk about wind. Those are only a few of the opportunities we have to use our resources in new ways.

I am proud to support alternative and renewable energy, and will continue to do so. But we can't shortchange our energy needs today by focusing our efforts on alternative energy alone. Many of the technologies are promising but are still in the developmental and very expensive stages in comparison to our traditional energy sources. By continuing to develop and encourage alternative fuels and create markets for those technologies, we can approach this country's energy future with optimism.

It is time we go to work. It is time we debate those issues one by one. But keep in mind what I said at the beginning of this speech. I do not know of a military airplane we fly that doesn't burn oil-based fuel. And if something really bad happens in this country, I tell you something: The fire truck that shows up and the emergency vehicle will burn gasoline. In order to fight this great battle against terrorism and against people who would erode our freedoms, who work in the shadows, and who are a faceless enemy, the weapons we need still burn gasoline.

We have to think about the American people and their safety and their security. What we are asking in this is a policy that will develop those new technologies. But we cannot turn our backs on the demand for the energy sources we have used for so long in this country. Let us work to give the American people what they need—a safe, steady energy supply that will ensure economic stability and national security.

I thank the Chair. I yield the floor.

UNANIMOUS CONSENT REQUEST

Mr. DASCHLE. Mr. President, I wonder if the Senator would yield very briefly so we might propound a quick unanimous consent request.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DASCHLE. Mr. President, I ask unanimous consent the majority leader, following consultation with the Republican leader, may at any time turn to the consideration of H.R. 2356, the campaign finance reform legislation; that there be 4 hours of debate equally divided and controlled between the two leaders or their designees; that no amendments or motions be in order to the bill; that upon the use or yielding back of time the bill be read the third time, the Senate vote on passage of the bill, with this action occurring with no further intervening action or debate.

Mr. McCONNELL. Reserving the right to object, and I will object, let me

say to the distinguished majority leader and to all Members of the Senate, since he last propounded this consent agreement, the senior Senator from Arizona and I have had an opportunity to sit down three times in private discussion about some technical changes to the bill that I thought would not do violence to the underlying concept. We have reached agreement in principle on 6 of the 13 suggestions I made.

Today, he and I both had an opportunity to brief our colleagues in the Republican conference on the 13 suggestions I proposed. They have now been distributed. I would like for the majority leader and the Democrats to look at them as well. I am hoping we can continue to discuss the changes in the next few days.

I remind our colleagues that this bill, which certainly will become law sometime soon, doesn't take effect until November 6. So I think to take a little more time to look at it very carefully and consider technical changes that will benefit both sides is a good idea. I encourage all Senators to take a look at the suggestions I have made. I believe virtually all of them are reasonable. I know Senator MCCAIN believes that at least some of them are reasonable. Therefore, I object.

The PRESIDING OFFICER. The objection is heard.

Mr. MCCAIN. Will the Senator yield?

Mr. DASCHLE. I am happy to yield.

Mr. MCCAIN. I thank the majority leader for propounding this unanimous consent agreement, and I thank my colleague from Kentucky for entering into good-faith discussions on this issue. We have had important discussions, and I think they have been something that Senator MCCONNELL deserves to have had, given the long involvement we have had in this issue.

I must tell my colleagues, we are at an impasse. We are at a situation where we need to move the process forward because the seven areas of ''disagreement'' that we have are substantive in nature, could never be viewed by me and Senator FEINGOLD, with whom I have consulted constantly during this issue, my partner—could not be construed as anything but substantive amendments.

That is why I requested that the Senator from Kentucky bring up these 7 amendments, we vote them up or down, 51 votes carries, and we agree to move to final passage on the bill.

I cannot continue to discuss the amendments on the bill when we cannot agree to process on the bill. My position—and it remains my position, as propounded by the majority leader—is that we move to the bill with a consent the amendments the Senator from Kentucky or others may have be voted up or down, with an agreement on those amendments, with final passage.

As to the technical amendments, many of which are still up for discussion and would have to also be agreed to by our colleagues on the other side of the Capitol, those we would agree to by unanimous consent agreement, as far as the Senate is concerned, and if we, the majority leader, the Republican leader, Senator MCCONNELL, Senator DODD, Senator MCCAIN, and Senator FEINGOLD are in agreement, we would take up and pass those technical amendments to the bill. I think that is a fair disposition of this legislation.

As Senator MCCONNELL is going to distribute his proposals, I will also distribute our responses. To any objective observer, a majority of those are not technical in nature, they are controversial. They need to be debated and voted on within a reasonable length of time.

Finally, I appreciate the patience of the majority leader. He is committed to the energy bill. I understand that commitment. But I also appreciate the fact that the majority leader wants this issue dispensed with. It was March a year ago that we passed this legislation. It went over to the other body with assurance of a fair rule. It was an unfair rule. They had to get 218 votes. They passed this legislation with 10 amendments. We had 3 weeks of debate—3 weeks with amendment after amendment.

This issue has been ventilated. It is time to move forward. I say with great respect and appreciation for this honorable opponent, it is time we move forward. If we have to, the majority leader needs to go through the cloture motion process. I regret that, but we cannot discuss further technical amendments that are not technical amendments unless there is an agreement on the process, and that process has to be consideration of amendments and agreement of final passage, or anticipation of a filibuster, to which one of our colleagues has already committed, no matter what.

One of our colleagues is already committed to filibuster, I say to my colleagues, no matter what happens in the discussions that Senator MCCONNELL and I may have. It is time we plan for that and move forward with cloture motions. If the Senate decides not to get 60 votes, then we will wait until the next scandal. We will wait until the next scandal, I say to the Senator from Kentucky. I don't know if it is Buddhist Temple fundraising, I don't know if it is Enron, I don't know who it is, but this system awash in money creates scandals because it makes good people do bad things. It is time we fixed it.

Mr. DASCHLE. Mr. President, I am happy to briefly yield to the Senator from Wisconsin.

The PRESIDING OFFICER (Mr. DAYTON). The Senator from Wisconsin.

Mr. FEINGOLD. Mr. President, I have been quiet the last few days about this because I have a lot of respect for the Senator from Kentucky, and I admire the patience of my partner, Senator MCCAIN, to go through these proposals with the Senator from Kentucky. But I have to say, in my mind, the time has run out.

The proposals the Senator from Kentucky is talking about, as he indicated, in some cases are technical. In those instances, we can simply deal with these matters in a separate piece of legislation. But the Senator from Arizona is right. The other matters are substantive; they are controversial. But I add, they do not go to the core issues of the McCain-Feingold bill.

A broad consensus in both Houses, a bipartisan consensus, has voted strongly to pass those items. That has to happen now. And given the fact that one of the Members on the other side of the aisle has indicated—not the Senator from Kentucky, but another Member—that there will be a filibuster, in any event, the time has come not to be quiet anymore but to support the majority leader, who has come out here diligently and tried to move us forward. Consistent with the other commitments he has made, consistent with all the pressures he has, he has been here and tried again today to get us to the final process.

It is regrettable, but I think we have to go now to the final stage: to represent the will of this body, the will of the House, and to finally clean up this system. I don't think any more delay is merited.

Mr. DASCHLE. Mr. President, I have said publicly, and I will say for purposes of the Record, it is my intention to back up from the final day of this particular work period for whatever length of time may be required to go through the procedural hurdles to accomplish our goal of completing our work on this bill prior to the time we go into the Easter recess. So we will do that. I just put my colleagues on notice.

I also simply note that had we been able to get unanimous consent, I would also have asked unanimous consent on behalf of Senator HOLLINGS that the constitutional amendment regarding campaign finance reform also be considered. But since that agreement could not be reached, I did not propound the other request.

I am happy to yield to the Senator from Kentucky.

Mr. MCCONNELL. If the Senator will yield for a question, I hope the majority leader might be willing to share the information now with the balance of his colleagues so that others might take a look at whether or not these suggestions are reasonable and don't go to the heart of the bill. Even Senator MCCAIN and Senator FEINGOLD have indicated that six of them we can probably reach agreement on in principle.

You are the majority leader, not I, but let me suggest on the ones that we can agree with in principle, it might be appropriate to pass a separate technical corrections bill, if it needs to be in a separate bill, in order to avoid going back to the House. Pass the technical corrections bill simultaneously; it goes back to the House, the other bill goes on down to the President.

I am a little worried about there not being much interest in the technical

corrections bill after the main bill leaves the Senate.

If we can reach agreement on at least some of these, as appears possible, I hope the majority leader might consider taking up the technical corrections package simultaneously, sending it out of here and back over to the House side. It is just a suggestion.

Mr. DASCHLE. I say to the Senator from Kentucky, I know he has put a lot of time and thought into this. I am not averse to considering that approach. I think it is certainly worth our while to consider what proposals the Senator and others have suggested. We will take a look at that and entertain that possibility at such time as we take up the bill.

I yield the floor.

Mr. MCCONNELL. Mr. President, briefly, I ask unanimous consent the package I just referred to in my remarks be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

SENATOR MCCONNELL'S 6 TECHNICAL CHANGES PROPOSED—AGREEMENT IN PRINCIPAL

1. Transfer of Excess Campaign Funds—Shays-Meehan inadvertently eliminated unlimited transfers of excess campaign funds to party committees.

Solution: Include ''without limitation'' for transfers of excess funds so transfer will not be a ''personal use'' of campaign funds.

2. Not Impact 2002 Run-Offs—Effective date is before run-off elections are held.

Solution: Allow parties to operate under the current system for any 2002 run-off elections.

3. Defined Soliciation—Federal candidates and officeholders are heavily restricted in fundraising for state candidates and party committees. For example, federal candidates and officeholders could be banned from attending fundraising events for state candidates.

Solution: Clearly define what we can and cannot do.

4. Time Limit for Special Judicial Review Procedures—Plaintiffs around the country should not be forced to sue only in D.C. District Court forever, with no circuit court review (only option is discretionary appeal to the Supreme Court—practically foreclosing appellate review).

Solution: Provide a time limit for exclusive jurisdiction in D.C. District Court and lack of circuit court review.

5. Authorize Member Challenges—Shays-Meehan specifically authorizes member intervention in a suit but does not specifically authorize a member to challenge the new law.

Solution: Specifically authorize member challenges—parity for challenging and intervening.

6. State Party Building Funds—State parties will have to use hard dollars to pay for their buildings.

Solution: Clarify that state party building funds are governed exclusively by state law.

SENATOR MCCONNELL'S 7 TECHNICAL CHANGES PROPOSED—NOT AGREED TO

1. Outside groups/State Party Parity

Shays-Meehan Empowers Outside Groups and Weakens State Parties

Federal candidates and officeholders can raise soft money for outside groups: unlimited for 501(c)s whose primary purpose is not grassroots voter activities (could be used for issue ads and voter activities) and $20,000 per individual for any entity specifically for grassroots voter activities. (Not in McCain-Feingold.)

But state party grassroots voter activities are restricted: no party transfers, no joint fundraising, federal candidates and officeholders can only raise hard money and state parties can't use broadcast media for those activities. (Not in McCain-Feingold.)

Solution: Return to McCain-Feingold language and raise soft money limit to state parties from $10,000 to $20,000 to achieve parity with fundraising for outside groups.

2. Coordination Prosecution—If a candidate raises money for or meets with an outside group and that group engages in voter registration or simply discusses legislation in the candidate's state, the candidate may be civilly or even criminally prosecuted.

Solution: Require a more precise coordination standard.

3. Index Contribution Limit To State Party. The limit is increased but not indexed.

Solution: Index the hard dollar limit—critical to compete with outside groups.

4. Permit Party Coordinated And Independent Expenditures. Shays-Meehan treats all party committees (from national to local parties) as a single committee. Prohibits all committees from doing both coordinated expenditures and independent expenditures after nomination by party (contrary to S. Ct. ruling in Colorado I).

Solution: Do not treat all party committees as a single committee and do not prohibit them from doing both independent and coordinated party expenditures.

5. Do Not ''Federalize'' State Candidates—State candidates may not mention federal candidates in an advertisement unless they use hard dollars; state candidates doing GOTV activities together must use hard dollars, and federal candidates and officeholders are subject to the hard dollar limits and restrictions in fundraising for state candidates.

Solution: Do not ''federalize'' state candidates.

6. Index PAC limit—The limit is not increased or indexed.

Solution: Index, but do not increase, hard dollar contribution limits to and from PACs.

7. National Party Building Fund—Will be eliminated on 11/06.

Solution: Allow parties to spend, not raise, building funds until funds are depleted.

Mr. MCCAIN. Mr. President, I ask unanimous consent an analysis of changes proposed by Senator MCCONNELL be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

ANALYSIS OF CHANGES PROPOSED BY SENATOR MCCONNELL TO PENDING CAMPAIGN FINANCE REFORM LEGISLATION

Twelve specific changes to the McCain-Feingold/Shays-Meehan bill have been proposed to Senator McCain. Incorporation of any of these changes in the bill itself would kill the bill by sending it to conference or back to the House.

Many of these changes are unacceptable substantive revisions of the bill. Some of these changes would upset bipartisan compromises made during floor consideration in the Senate or decisions made on the House floor. Still others would undermine central components of the reform effort, particularly the soft money ban.

Some of the suggested changes are technical corrections that are not necessary, but that could be addressed in a separate technical corrections bill as long as it does not interfere with the prompt enactment of the pending campaign finance reform legislation.

Each of the amendments is discussed below. The headings for the amendments are taken from the proposal given to Senator McCain.

1. State Party/Outside Group Parity—This is a proposed substantive change to the pending CFR legislation. It would eliminate the changes made in the House that clarified Senator Levin's amendment in order to prevent the amendment from becoming a major loophole in the soft money ban.

Under the Levin amendment, state and local parties could use up to $10,000 per year of a contribution from a corporation, union, or individual, for generic get out the vote activities (GOTV); GOTV for state and local candidates; and voter registration within 120 days of an election involving a federal candidate, so long as these activities do not refer to a clearly identified candidate for federal office. As passed by the Senate, the Levin amendment could have been interpreted to allow federal officeholders to raise these soft money funds, and to allow state parties to use these soft money funds to finance broadcast ads.

Senator Levin was very clear on the Senate floor, however, that he did not intend this soft money to be raised by federal candidates or officeholders, and the House bill clarifies this. Senator Levin also intended that the money be used for grassroots activities, and the House bill clarifies this as well. On the Senate floor, Senator Levin explained that his amendment:

''These are dollars not raised through any effort on the part of Federal officeholders, Federal candidates, or national parties. These are non-Federal dollars allowed by state law.

Senator Levin further said:

''[This provision] will allow the use of some non-Federal dollars by state parties for voter registration and get out the vote, where the contributions are allowed by state law, where there is no reference to federal candidates, where limited to $10,000 of the contribution which is allowed by state law, and where the allocation between federal and non-Federal dollars is set by the federal election commission.''

The proposed revision would eliminate these clarifying provisions.

The House bill also added restrictions on joint fund-raising to prevent solicitations of large sums from a single donor, and restrictions on transfers of monies for Levin activities to state and local party committees to help prevent the federal soft money system from being shifted to the state level. The proposed revision would eliminate these protections.

The proposed revision would also double the amount of soft money that state parties can use from contributions provided by corporations, unions, or individuals for the authorized GOTV and voter registration activities. This would increase the $10,000 per year limit contained in both the House and Senate-passed bills to $20,000 per year. The $10,000 limit is the same as the limit that applies to hard money donations by individuals to state parties under the bill. Thus, under the bill, an individual donor can already give a total of $20,000 per year to a state party that can be used for voter activities, the same amount that federal candidates can solicit for outside groups for use on these activities.

2. Contribution Limit to State Parties—The proposal suggests indexing the amount that individuals can contribute to state parties. The decision not to index this amount was part of difficult bipartisan negotiations during Senate consideration of the bill that led to a package of increases in contribution

limits approved by the Senate. The only change in this provision made by the House was to increase the aggregate limits.

3. Hard Dollar Candidate Support by Parties—This is a proposed substantive change to the pending CFR legislation. The proposal would allow parties to make both independent and coordinated expenditures in individual races.

The requirement that the parties choose between these expenditures was contained in both the Senate and House-passed bills and is not inconsistent with the Colorado I decision. For purposes of this provision only, national and state party committees are treated as a single entity. Otherwise, the provision would not be effective because, for example, a national party could choose to make coordinated expenditures, and then transfer additional funds to a local party to use for independent expenditures.

Parties should not be able to claim that they are independent of one of their candidates if, during the general election period, they are making coordinated expenditures with that same candidate under section 441a(d) of the FECA. Permitting both coordinated and independent expenditures by a party makes meaningless the coordinated spending limits recently upheld by the Supreme Court in Colorado II. Furthermore, since the bill provides that the choice between making independent or coordinated expenditures is made by the party only after a candidate is nominated, the national party will be able to control the decision of which kind of spending to undertake. In addition, contrary to the claim made in the proposal, there is no general restriction on transferring hard money between national and state parties.

4. Excess Campaign Funds—This is a proposed technical clarification. The proposal seeks to add the words ''without limitation'' to the portion of the personal use provision of the bill that deals with transfers of excess campaign funds by candidates to political parties.

There was no intention to change longstanding federal election law that permits candidates to transfer excess campaign funds without limitation to their parties. This can be clarified in a colloquy or in a technical corrections bill if there is one.

5. PAC Contribution Limit—This is a proposed substantive change. The proposal would index the limits on how much can be contributed to and from PACs.

Increasing or indexing PAC contribution limits was considered and rejected in bipartisan negotiations on contribution limits during Senate consideration of the bill. The decision represents a position that the role of PACs in financing elections should not be increased. The Senate agreement was not changed in the House.

6. 2002 Run-off Elections Unfairly Impacted—This is a proposed substantive change to the pending CFR legislation. The proposed revision suggests changing the effective date with respect to runoff elections. This would allow soft money to be raised after November 5, 2002.

In deciding to delay the effective date of the bill so that it would not apply to the 2002 elections, a very clear decision was made that no soft money should be raised after election day. With respect to other provisions of the bill, such as the spending of excess soft money and electioneering communications, the suggestion that the bill not apply to runoff elections related to the 2002 elections can be dealt with in a floor colloquy or in a technical corrections bill if there is one.

7. *Building Fund*—The proposal has two parts. One is a substantive change, the other is not. The substantive change would allow the national parties to spend their excess soft money on buildings without any time limitation. The non-substantive portion of the proposal would make clear that state party building funds are governed solely by state law.

A provision allowing the national parties to spend their excess soft money on buildings was included in the House bill that went to the floor. It was vigorously attacked by the Republican leadership in the House, which claimed that it was a special advantage for the DNC. The provision was stripped from the bill by an amendment on the House floor that was overwhelmingly supported by Republicans. The Senate bill contained no special exemptions for national party buildings.

There is nothing in the House-passed bill that regulates state party building funds. This concern can be addressed in a floor colloquy, or a separate technical corrections bill if there is one.

8. *Ensure Unintended Litigation Does Not Result*—This is a substantive proposal that has two parts. The first part suggests defining ''solicitation.'' Separately, the proposal would eliminate the increase in the statute of limitations from three to five years that was added to the bill by the Thompson-Lieberman amendment.

Like many other terms in the bill, ''solicitation'' will be subject to definition by the FEC in regulations. A statutory definition could also be included in a separate technical corrections bill if there is one and if agreement on the definition of the term can be reached.

The increase in the statute of limitations from three to five years resulted from Senators Thompson and Lieberman's concern that wrongdoing in the 1996 election was not being effectively pursued by the Justice Department. A five year statute of limitations is common in the federal criminal law. Both the House and Senate bills lengthened the statute of limitations and did not contain a definition of solicitation. No question about either of these issues was raised during floor consideration in either body.

9. *Coordination*—This is a substantive proposal. The proposal claims to offer ''modest changes'', but in fact would make significant changes to coordination language that was passed by the Senate, and included in the House bill.

Contrary to the proposal's claim, the bill does not provide a new definition of ''coordination.'' The bill repeals recently adopted FEC regulations on coordination and directs the FEC to issue new regulations. It requires the FEC to address certain topics in the rulemaking, but does not dictate what the FEC should decide. The bill also specifies that ''agreement'' or ''formal collaboration'' are not required for coordination to exist.

This direction is given because the current regulations allow blatant coordination to occur between candidates and outside groups in issue ads and other campaign-related activities simply by never entering into an ''agreement'' or ''formal collaboration.''

Contrary to the suggestion in the proposal, nothing in the bill even remotely suggests that a candidate's raising money for a group would alone trigger a finding that the group's spending on voter registration activity is coordinated with the candidate.

10. *Effect on State Candidates*—The proposal suggests a non-substantive, but unnecessary change. The proposal seeks to clarify that state candidates may ''align themselves'' with federal candidates in their solicitations and campaign activities, including advertisements.

The bill already permits state candidates to publicize endorsements from federal candidates or align themselves with a federal candidate's views. However, the bill prohibits state candidates from spending soft money to promote or attack federal candidates through general public political advertising.

11. *Time Limit For Expedited Judicial Review*—The proposal seeks to limit the expedited judicial review provision of the bill to suits brought shortly after enactment.

The expedited review provisions in the Senate and House-passed bills were not limited in this way. The expedited review provisions assure that decisions that could affect ongoing campaigns will be made promptly. These provisions will be useful even years after enactment.

By requiring all suits challenging the constitutionality of the bill to be brought in the District of Columbia, the bill avoids the conflicts between the circuit courts that have created uncertainty in current law. The provision also requires these cases to be heard by three-judge panels. Given the importance of the election law to campaigns, there is no reason to force suits to be brought within a specific time period after enactment in order to qualify for expedited treatment. The Supreme Court can summarily affirm the lower court's decision if it chooses, so this provision need not be a burden on the Court's docket.

If agreement can be reached on revised judicial review procedures, it can be included in a technical corrections bill if there is one.

12. *Court Challenges*—The proposal would give Members of Congress a statutory right to challenge the campaign finance reform law directly.

The existing intervention provisions of the bill give Members of Congress on both sides of the issue the ability to participate equally in litigation concerning the constitutionality of the Act. Members of Congress may already have standing to challenge the Act in court, and Congress cannot grant constitutional standing where it does not already exist. Issues relating to standing by members could be addressed in a separate technical corrections bill if there is one, as long as members on both sides of the issue are treated similarly.

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2002—Continued

The PRESIDING OFFICER. The Senator from Oklahoma.

Mr. INHOFE. Mr. President, when the Senator from Montana referred to me as a producer, he was referring to the State of Oklahoma which is a production State. I don't think inadvertently he also referred to me as a producer. And I was.

I started out at the age of 17 in the oil fields. At that time, I was a tool dresser. Not many people know what a cable tool rig is. I was a tool dresser on a cable tool rig. There is no harder work in the world than being a tool dresser on a cable tool rig. That was before rotaries. Mostly, they were marginal wells—shallow wells.

Mr. BURNS. Mr. President, will the Senator yield?

Mr. INHOFE. Certainly.

Mr. BURNS. The Senator must have been pretty good at it. He still has all of his fingers and thumbs.

Mr. INHOFE. I suggest to the Senator that he is one of the few Senators who know what I am talking about. When you picked up a cable tool—it

weighed several hundred pounds—if you did not open up your hands in time, it went right down in there. I have a lot of friends who can't play the guitar anymore.

Frankly, I almost ended up in this business. It is a very admirable business. When we talk about economic development and economic stimulus, I think often about the oil fields in Oklahoma. I was a very young child at that time. We are talking about 50 years ago. I remember going to get lunch. You had to stand in line and wait to pay your ticket. That was back in the days when we really had economic stimulus. It came from this energy. That is something we don't talk about very much, but it is a very real thing, and it is particularly real when you personally experience it.

But I have to say that my major concern right now with our energy crisis with which we are faced—and it is a crisis—is how it affects our ability to defend America. I spent about 4 years chairing the Armed Services Subcommittee on Readiness. I am now ranking member. I see what our readiness problems are and what our military problems are as they relate to our dependency on foreign countries for our ability to fight a war. Several Members mentioned—including the Senator from Montana—that our dependency is directly related to our ability to be independent and to be strong. If we are dependent on Iraq for our ability to fight a war against Iraq, that is a crisis. That is a situation we are in right now. We are dependent upon foreign countries for our ability to fight a war.

But here are the facts. I think it is important that we talk about this from a military perspective.

First of all, the military is as dependent on foreign oil as the general public is. It takes eight times as much oil to meet the needs for each U.S. soldier as it did during World War II. In addition to that, the Department of Defense accounts for 80 percent of all Government energy use.

For all practical purposes, we are talking about the defense ramifications of this use. It is not like it was in World War II. Now it takes eight times as much oil. It is a very serious problem.

Iraq is the fastest growing contributor to our dependency. People do not understand that. They say: Wait a minute. Aren't we at war with Iraq? I guess by some definition you would have to say we are. They are shooting down our UAVs that are flying over some of the zones trying to protect us, as is required by U.N. resolution. Yet Iraq is the fastest growing source for United States oil imports. Shockingly, in the year 2000, $5 billion of American money went to Iraq to buy oil.

There is a lot of talk about sanctions. I am a believer in sanctions, if sanctions are going to really accomplish something. But how can we have sanctions against a country when we are paying them $5 billion in America money to buy the oil, particularly when that is used to defend America?

America's energy consumption is on the rise, but we are producing less domestic oil than at any time since World War II. Our dependency on foreign oil has dramatically increased since 1973, and it is projected to continue to increase—currently, about 60 percent. You hear 57 percent. You can justify some 60 percent, depending on how you calculate it. Sixty percent of U.S. oil needs are met by foreign sources.

In the mid-1980s, I traveled around the country with Don Hodel. Don Hodel was Secretary of the Interior. He was also Secretary of Energy. This was back during the Reagan administration. At that time, we were about 38 percent dependent on foreign countries for our oil. Don Hodel and I went to States that are consumption States and not production States, and explained to them that our dependency on foreign countries for our ability to fight a war was a national security issue—not an energy issue. In fact, we had a little dog-and-pony show. We would go back to, and including, the First World War. And every war since then has been won by the country that had control of the energy supply. You can't name one country that wasn't.

There were a lot of people who listened to us. We were in Illinois, in New York, in New Jersey, and in different States, trying to tell that story. It didn't sell too well then.

After the Persian Gulf war, people started listening and realizing that there is a relationship between our ability to be energy sufficient and the danger that we are facing.

In both 1995 and 1999, the Secretary of Commerce acknowledged, pursuant to a law requiring his assessment, that our oil dependency poses a threat to our national security. Keep in mind, this is before September 11. Additionally, in January of 1998, I elicited virtual consensus from all members of the Joint Chiefs of Staff that energy security was a too-often overlooked aspect of our national security needs.

After September 11, Deputy Secretary of Defense Paul Wolfowitz said that U.S. dependency on foreign oil—now, this happened in a public hearing where we were; and I asked him the question about how it relates to our national security—he said that U.S. dependency on foreign oil "is a serious strategic issue . . . My sense is that [our] dependency is projected to grow, not to decline . . . it's not only that we would, in a sense, be dependent on Iraqi oil, but the oil as a weapon. The possibility of taking that oil off the market and doing enormous economic damage with it is a serious problem."

That is the Deputy Secretary of Defense, Paul Wolfowitz.

The President made energy a top national priority. He said it over and over again. Sometimes I wonder if people are listening. In an overwhelmingly bipartisan manner, the House of Representatives adopted a comprehensive energy policy which includes provisions to modernize conservation and infrastructure, increase domestic energy supplies, and accelerate the protection of the environment.

But that is not all that H.R. 4 has. H.R. 4 is a comprehensive approach to meet our energy needs. We have nuclear in there; we have oil and gas production. Let's just take the marginal production I have been concerned about, because my State happens to be a major producer, or they used to be, of marginal wells.

A marginal well is a well that produces 15 barrels of oil or less a day. If we had all the oil that would have come from margin wells that have been plugged in the last 10 years flowing again today, it would produce more oil than we are currently importing from Saudi Arabia. That is a huge source. That is part of H.R. 4.

H.R. 4 also has renewables in it. People are talking about renewables. It has nuclear. Right now, to meet our energy needs to light our lights in America, we are only 20 percent dependent on nuclear energy. France is 80 percent dependent. Those very people who were marching and protesting back in the 1970s against nuclear plants now realize, after all the ambient air problems that have been coming up, that nuclear energy is among the safest, the cheapest, and the most abundant energy available, yet we are not using it.

That is why I offered the energy bill as an amendment to last year's Defense authorization bill. Here I am on the Armed Services Committee. I had chaired the Subcommittee on Readiness. I offered the energy bill to the Defense authorization bill so people would somehow reprogram their thinking and realize we were talking about a defense issue. We are talking about a national security issue when we talk about our energy dependence. So I offered it, and I was glad I did.

We, of course, are addressing energy legislation today. I am really highly troubled by the bizarre legislative path that this legislation has traveled. I know we have talked about this quite a bit. I hope the majority leader will allow fair up-and-down votes on issues such as ANWR. We need to vote on it.

I wish it were required for everyone who is going to be voting on ANWR to take a trip up to the north slopes of Alaska to see what we are really talking about. It is not a pristine wilderness. We are only talking about a very small, a minuscule part of that area up there, and we are talking about an environment where the Eskimos, the local people, are begging us to come in and open it up.

So we do not need just any bill; the Senate owes our country a strong energy bill, which should include hydraulic fracturing. Hydraulic fracturing is a system where water is forced in, in order to be able to produce the oil.

Some 80 percent of the wells now use hydraulic fracturing. In the last 15 years, we have had 100,000 wells that have used that process. There has never been any environmental problem with it.

Since 1940, when we started this process, there have been over 1 million wells that have used hydraulic fracturing. But some court came along and said they were going to have to look at the environmental concerns that go along with hydraulic fracturing. Wait a minute. If we have done a million wells, as we have, using that process, and there has never been a problem, why are we concerned about it?

We need to have a strong energy bill that has the tax incentives for domestic oil production. I have talked about that. We have a tremendous opportunity there. But, you see, you cannot go after marginal wells because it costs 10 times as much to lift a barrel of oil that way than it does in Saudi Arabia. So you have to have some type of protection in there so that a person who is making an investment in a well today—recognizing they are not going to have any production out of that well for a couple years—how do they know what the price is going to be when it escalates from $8 a barrel to $40 a barrel, and then goes back to $8 a barrel? There is no way they can afford to take that kind of a risk. Certainly, the Presiding Officer is someone who has been in the business world, and he understands that. You have to have an idea of what kind of investment return is going to be out there. H.R. 4 has that in it. We need to have that in our bill. It said, if the price goes down, and it starts going below $17 a barrel, as it approaches $14 a barrel, tax credits set in, so they know it is not going to go below that. It is a way of getting another large block of oil domestically.

Corporate average fuel economy, the CAFE standards, while every single Senator has sworn an oath to uphold a government of the people, by the people, and for the people, some in this body seek to thwart the will of the people who drive vehicles and who express their will every day when they purchase vehicles at auto dealerships. It is called choice. This is America. We are supposed to have freedom of choice.

In greater numbers than ever before, all across this country, and particularly in my State of Oklahoma, Americans are purchasing minivans, sport utility vehicles, light trucks, and roomy cars for their safety, comfort, and utility.

I strongly support Americans' safety and ability to select whatever vehicle we deem fit for our purposes. We are not ''one size fits all.'' We are different people. I have 4 children and 11 grandchildren. I suggest to the Senator from Ohio, you try putting them in a compact car. They just don't fit. Our needs are different.

I think the bill should exclude renewable portfolio standards, RPS. The left again seeks to encroach upon the free market and the business of America through attempts to limit the use of coal, oil, natural gas, hydroelectric, and nuclear energy in an era when America is trying to ward off energy crises. We need all of the above. All of those things should be a part of this bill. But by shrinking the allowable percentage of power coming from these sources, we hamstring our ability to deliver needed energy and we weaken our Nation.

Price-Anderson. This is going to be controversial. It should not be controversial. This is a way that will allow us to get and expand into nuclear energy. Currently, 103 U.S. nuclear units supply about 20 percent of the electricity produced in the United States. Going forward into the future, nuclear energy must be a key component of any national energy plan. As ranking member of the subcommittee of jurisdiction, I believe the first step in that direction must be the reauthorization of Price-Anderson.

Finally, I would like to address the impact of overly burdensome regulations on our energy supply. In a recent report entitled ''U.S. Downstream: The EPA Takes Another Bite Out of America's Fuel Supply,'' Merrill Lynch concluded that EPA's clean air regulations ''will clearly have the impact of reducing existing U.S. refining capacity.'' In other words, the United States will have a greater dependency on foreign refineries.

When the price of gasoline goes through the roof, we all witness the incredibly irresponsible accusations that big oil companies ''were colluding.'' Price spikes occurred last summer because of the large number of poorly implemented environmental regulations. I have sat on that committee for 8 years now. We are at virtually 100 percent refinery capacity in this country. We started having new start reviews. We started having more and more regulations that really have nothing to do with the environment, and then we wonder why the price of fuel goes up.

It is supply and demand. We should know something about that in this country. When we are at 100 percent, we have more regulations that cost more money, and then some of the refineries leave and go down to Mexico. Then we can't even meet the current needs. What is going to happen? The price is going to go up.

The solution to high prices is not found in cheap political gimmicks such as releasing oil from the Strategic Petroleum Reserve. Rather, the solution relies on a national energy policy and having a highly effective and streamlined environmental regulation.

This is not a partisan notion. Going all the way back to the Carter administration, I tried to get them to have a national energy policy. Then Reagan came along. I thought we could get it in a Republican administration. I tried to get the Reagan administration to do it. They wouldn't do it. I tried along with Don Hodel, who worked in the Reagan administration. Then along came George the 1st from the oil patch. I thought, surely we will have a national energy policy at this time. He didn't have one. Of course, we haven't had one since.

We have that opportunity now. This President is committed to having a national energy policy.

When well thought out and reflecting consensus, environmental regulations can certainly provide benefits to the American people. But when regulations are rushed into effect without adequate thought, they are going to do more harm than good.

I see the Senator from Ohio in the Chamber. I remember before he was in the Senate, I held a hearing in the State of Ohio on new source review. We had testimony from refiners that replacing a 12-inch pipe triggered a new source review which cost millions of dollars in that case.

As a Senator and a grandfather, I want to ensure the cleanest environment in our Nation. However, I am convinced that environmental regulations can be harmonized with energy policy. Our current situation demands it.

I know that the extremist environmental community opposes any of the provisions and reforms which I have discussed. However, the environmental community does not have to answer to the American people when energy prices go through the roof. Nor does the environmental community have to worry about the national security implications of greater dependency on foreign oil.

My major concern, the reason I put this on H.R. 4 as an amendment to the defense authorization bill, is because I can't think of any single thing that plays a greater role in our future national security than becoming energy independent. Again, it is ludicrous that we should have to be dependent upon Iraq oil to fight a war against Iraq. It doesn't make sense. It is time we start making some sense.

I yield the floor.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. BAYH. Mr. President, as we begin debate on comprehensive energy legislation, it is important to remember that a diversity of energy concerns has brought us to this point. Because current energy supplies are relatively high and gasoline prices are relatively low, there are those that may want to postpone the difficult decisions required by comprehensive action. I rise today to remind my colleagues of our energy history and that, to avoid repeating the energy crises of the past, we need to act now.

A quick review of just the last four years reveals the breadth of the energy issues that we must address. At the end of 1998, oil prices were so low they threatened the viability of the domestic oil industry; in the spring of 1999, they soared to record levels. Severe weather and transportation problems

combined to create a home heating oil crisis in the Northeast the following winter. At the start of the summer of 2000, people in the Midwest were paying record prices for petroleum products. Later that summer, a decaying gas pipeline in New Mexico exploded, killing an entire family.

The winter of 2000 brought new challenges. Consumers were paying an average 30 percent more to heat their homes than they had the previous year. The summer of 2001 saw the collapse of the California electricity market, with blackouts and previously unthinkable electricity prices. Last fall, we began a war against terror that may impact our supplies of oil from the Middle East.

Energy policy is about more than the price of gasoline at the pump today. A comprehensive energy policy will require thoughtful, and often difficult, choices today to ensure secure, affordable and sustainable energy in the future. The bill before us addresses many of these choices. It aims to secure new, as well as traditional, energy supplies; promote investment in critical infrastructure; expand technology options; reduce energy use and promote energy markets that protect consumers and the environment.

I would like to highlight just a few of the provisions in this bill that I believe advance these objectives. Many of these are items that I worked with Chairman BINGAMAN to have included in this bill and I thank him for his assistance and support.

First, among the bill's efforts to increase our short-term energy security, is a provision that Senator LANDRIEU and I developed directing that the Strategic Petroleum Reserve be filled to capacity. It also requires a review to determine whether the size of the Reserve and our capacity for refining and transporting the Reserve oil are adequate to respond to a severe supply disruption. The bill also moves the Nation toward greater long-term security by providing incentives for development of Alaska's natural gas resources. Other provisions to expand the use of renewable fuels for transportation will ease both short- and long-term supply uncertainties, while reducing the environmental costs of petroleum.

The energy bill also acknowledges the critical role that innovation and technology deployment will play in our long-term energy strategy. The bill expands energy research and development in traditional as well as alternative energy. This bill also calls for the Department of Energy to identify ways to accelerate innovation and reduce barriers to technology development.

The tax provisions of the bill, which I understand will be added at a later date, also aim to balance incentives for increasing conventional and alternative energy supplies, including credits for marginal oil well production, clean coal technology and renewable energy production. In addition to supply incentives, the package contains provisions to address energy demand, including credits for efficient cars, homes and appliances which will help to reduce energy use while promoting technology development.

Another way that I believe that the Federal Government can play a significant role in promoting efficient technologies is by using its own purchasing power. Last year, I introduced a bill, S. 1358, to provide resources and enhance accountability for the Federal Government's efforts to improve its own efficiency and reduce its energy use. The bill would establish energy reduction goals and performance standards for Federal buildings and fleets; ensure that Federal procurement policies promote purchases of the most efficient equipment and supplies and create a Federal revolving fund, or ''energy bank'' to help agencies finance efficiency improvements. Many of these initiatives have been incorporated into the bill before us; I believe they will reduce the Federal energy bill and build the market for efficiency technologies.

Another area in which the bill provides assistance for advanced energy technologies is a voluntary demonstration program, which I also supported, to help schools and communities secure newer school buses that use clean diesel and natural gas technology. A growing market will help to bring down the cost of these new technologies and let communities reap the air quality benefits in the process.

The bill also recognizes the requirements of new energy markets. For instance, S. 517 replaces the archaic Public Utility Holding Company Act of 1935 with regulatory and oversight mechanisms that protect the consumer in the modern marketplace and promote investment in the energy sector. It also acknowledges that effective energy planning must occur across State lines and provides for regional energy coordination without undermining States' authority.

These are just a few of the important ideas in the bill that deserve support; there are many more. There are also many difficult issues that will need to be resolved. We will not all be able to agree on every provision in this bill, but it is critical that we work across party and regional lines to find compromise where we can and move forward with a comprehensive policy. The alternative is to persist in our national amnesia about our energy problems, ensuring that the spiking prices, infrastructure failures and energy insecurity of the past become part of our future.

MORNING BUSINESS

Mr. REID. Mr. President, I ask unanimous consent the Senate now proceed to a period of morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

WTO DISPUTE

Mr. DODD. Mr. President, on February 1, 2002, the World Trade Organization adopted a report by its Appellate Body that concluded that a U.S. law known as Section 211 violates U.S. obligations to protect and enforce intellectual property rights under the Agreement on Trade Related Aspects of Intellectual Property Rights, TRIPS. The WTO urged the United States to take the necessary steps to bring the United States into compliance with its international obligations. This decision provides Congress with an opportunity—a chance to reaffirm our commitment to the protection of intellectual property rights by repealing Section 211 in its entirety.

Section 211 is a special interest provision that was added into the FY 1999 Omnibus Appropriations Act at the behest of Bacardi, Ltd., a Bermuda-based corporation, just prior to enactment. It was not considered in conference, in any committee, or on the floor of either House of Congress. This ill-conceived provision triggered the WTO complaint against the United States and has undermined U.S. leadership in promoting strong protection for intellectual property rights in the global marketplace.

The Appellate Body concluded that key provisions of Section 211 violate two fundamental principles of WTO rules—national treatment and most-favored-nation treatment—which prohibit WTO members from discriminating against intellectual property right holders based on nationality. For over 100 years, these principles have obligated our trading partners to protect U.S. trademark and trade name holders from discrimination abroad. The Appellate Body found, however, that Section 211 violated these longstanding U.S. obligations by imposing obstacles on foreign intellectual property right holders that do not exist for U.S. and other nationals.

The United States cannot appeal the Appellate Body's conclusion that Section 211 clearly violates WTO rules. Following last week's formal adoption of the Appellate Body report by the WTO's Dispute Settlement Body, the United States has only a short time to correct its violations and come into compliance with WTO rules. If the United States fails to do so, it will have to offer compensation or face possible retaliatory measures against U.S. intellectual property right holders and other trade interests.

Even more troubling than the threat of retaliation, however, is the fact that Section 211 and the Appellate Body decision may serve as a model for other countries that wish to make it more difficult for U.S. intellectual property holders to protect and enforce their rights abroad. While the Appellate Body concluded that Section 211 violates national treatment and MFN, it let stand other U.S. arguments that suggest that WTO members are free to deny protection to trademark right

holders on grounds other than those provided in the TRIPS Agreement and Paris Convention. In other words, in order to defend Section 211 the U.S. argued that TRIPS is limited in its scope. These arguments were not only contrary to long-established U.S. international intellectual property policy objectives; they could ultimately invite arbitrary treatment and abuse of U.S. brand names overseas.

The only appropriate response to the WTO decision is to repeal Section 211 in its entirety. Repealing Section 211 will underscore that the United States abides by its international commitments. It will safeguard U.S. intellectual property rights in foreign markets, remove the threat of retaliation against U.S. exports, and restore U.S. leadership in the fight to secure strong protection and enforcement for intellectual property rights worldwide.

I call on the administration to work with the Congress to quickly repeal Section 211 in its entirety to restore the U.S. to its rightful place as the world's guardian of intellectual property rights.

LOCAL LAW ENFORCEMENT ACT OF 2001

Mr. SMITH of Oregon. Mr. President, I rise today to speak about hate crimes legislation I introduced with Senator KENNEDY in March of last year. The Local Law Enforcement Act of 2001 would add new categories to current hate crimes legislation sending a signal that violence of any kind is unacceptable in our society.

I would like to describe a terrible crime that occurred August 10, 1996 in Portsmouth, NH. A gay man was attacked outside a nightclub. The attackers, three men, yelled anti-gay epithets while they assaulted the victim.

I believe that government's first duty is to defend its citizens, to defend them against the harms that come out of hate. The Local Law Enforcement Enhancement Act of 2001 is now a symbol that can become substance. I believe that by passing this legislation, we can change hearts and minds as well.

COMMEMORATING THE ONE YEAR ANNIVERSARY OF THE SHOOTING AT SANTANA HIGH SCHOOL

Mrs. BOXER. Mr. President, today marks the one-year anniversary of the tragic shooting at Santana High School in Santee, CA. This shooting claimed the lives of two innocent teenagers: Brian Zuckor and Randy Gordon, and sent an entire community into mourning.

The community of students, faculty, family and friends at Santana High School is still mourning. The healing process is difficult and long, and I offer my thoughts, condolences, and support to the entire community. I look with great respect at the way they have reacted to this senseless act of violence; both immediately, in the aftermath of the shootings, and in the year that has followed. Youth and adults alike have shown great compassion, strength and bravery in coping with this tragic event.

To commemorate this one-year anniversary, the school held a ''Santana Safe School Tribute 5k Run/Walk'' on Saturday morning. Proceeds from the walk will benefit the creation of Santana's Community/Family Resource Center, a center aimed at providing youths the physical, emotional and intellectual support they need. In addition, Santana High School will have a day of private remembrance today, with a flag ceremony in the main quad, a moment of silence, and a luncheon for the entire school community.

On this day, the anniversary of Santana High School's shooting, I once again extend my support for the families and friends affected by the tragedy. I offer special condolences and thoughts to the Zuckor and Gordon families. I assure them that I continue to hold this incident close to my heart as I fight to pass common sense gun legislation, put police officers in schools, and keep our children and communities safe.

GOD BLESS THE USA

Mrs. LINCOLN. Mr. President, I ask unanimous consent that the following poem, ''God Bless the USA,'' written by Ms. Debbie Rogers of Danville, AR, be printed in the RECORD.

There being no objection, the poem was ordered to be printed in the RECORD, as follows:

GOD BLESS THE USA

Twin Towers once stood regally, but Majestic in the sky,
Pure evil took them down today, Americans stand and cry.
Two planes marked for death, As the world observes them crash,
Once Titanic against the skyline, now scattered in debris and ash.
Four planes all together, carrying innocent lives on each one,
Leaving disbelief and carnage, when the Hellish Butchers were done.
There was no kind of warning, no message did they send,
And total devastation, is so hard to comprehend.
Emergency Crews work frantically, keeping hope always alive,
They dig with bleeding hands, Praying someone does survive.
Thousands hurt and missing, death lingers in the air,
Families in such torment, the world mourns in deep despair.
Our whole world has been disrupted, As we watch the Breaking News,
Praying they find survivors, and all the missing clues.
We need closure for the Families, and Justice for Us all,
We'll deal with this catastrophe, As Americans we stand tall.
We're proud to be Americans, We won't take this without a fight,
We won't cease in determination, till this wrong is made a right.
We'll rise above the smoke and ash, remembrance in Our heart,
Of all the innocent Families, these Monsters tore apart.
Now vengeance seems to call, like a beacon in the night,
God forgive Our thoughts, two wrongs don't make a right.
But we'll stand on Honor and Justice, there'll be a reckoning day,
This deed won't go unpunished, God Bless The U.S.A.

ADDITIONAL STATEMENTS

CHILDREN'S SPINE FOUNDATION ''THE ART OF GIVING''

• Mrs. BOXER. Mr. President, on March 6, 2002, the Children's Spine Foundation will hold its Fourth Annual Gala, ''The Art of Giving.'' I would like to take a moment to inform the Senate of the organization's great work.

Spinal deformities present a serious health problem for many children each year, and many cases are life threatening. The Children's Spine Foundation helps detect spinal deformities early and treats them effectively. The foundation has helped save many lives.

Founded in 1994 by Dr. Thomas and Salma Haider, the Children's Spine Foundation provides much needed services to people in the Riverside and San Bernardino communities who might not otherwise have access to quality spinal health care.

The foundation connects children in need with renowned orthopedic surgeons at local hospitals. It also provides screening for spinal abnormalities and raises awareness through educational programs, health fairs, workshops and conferences.

I would like to express a special word of commendation to Dr. and Mrs. Haider, whose care and compassion have made the Children's Spine Foundation a reality. CSF would not be the wonderful foundation it is today without their guidance and vision. They are truly the pioneers behind CSF's important mission.

I send my best wishes to the Children's Spine Foundation on the special day of its annual gala event, and wish the staff and volunteers much continued success.•

CONGRATULATIONS TO MIKE ''DOC'' HOWARD

• Mr. BUNNING. Mr. President, today I ask my fellow colleagues to join me in praising the entrepreneurial spirit of Mike ''Doc'' Howard of Lebanon, KY. Mr. Howard was recently named the Outstanding Businessperson of 2001 by the Lebanon/Marion County Chamber of Commerce for his progressive economic vision and innovative genius.

Doc Howard received his first lesson in economics from his Uncle Howard when he was just 12 years of age. Doc was put to work by his uncle at the Arista Theater, Lebanon Drive-In, and

local gas station, where he ran the projector, operated the grill, and pumped the gas. At a young age, Doc Howard seemed to firmly grasp the simple but often elusive concept of saving money in order to make money. This economic axiom has stuck with him ever since his days of flipping burgers and pumping gas.

In the early 1970s, Howard, with the help of several business partners, opened a printing business and so began his career as an entrepreneur for Marion County. Since then, Doc has been fiscally involved in all of the following industries: entertainment, carpentry, real-estate, lumber, agriculture, produce, retail and restaurant. He has owned drive-ins, built houses, sold houses, owned grocery stores and delis, and even found time to become a farmer. Currently, Doc is attempting to build on his previous successes and bring even greater economic opportunities to the residents of Marion County. He recently bought the Lincoln Heritage Shopping Center, which now includes Sears, Dollar General, Central Kentucky Staffing, an Italian restaurant, a physical therapist, and a tobacco store. The people of Marion County will definitely benefit from these quality additions. Since the early 1970s, Doc Howard has diligently committed his efforts to making Lebanon/Marion County a more attractive place to do business. He deserves our praise for being a pillar of capitalism.

I congratulate Mr. Howard on his award and thank him for investing his time and money into the future of Marion County.●

TRIBUTE TO NEW NATIONAL FARMERS UNION PRESIDENT DAVE FREDERICKSON

● Mr. JOHNSON. Mr. President, I rise today to congratulate Dave Frederickson as the recently elected National Farmers Union, NFU, president. During the National Farmers Union 100th anniversary convention, delegates chose a true leader for their future in Mr. Frederickson. Family farmers and ranchers across America can rest assured that Dave will continue his commitment to them in his new role.

Dave brings 11 years of experience as the Minnesota Farmers Union, MFU, president to his new post. Not only is Dave committed to sustain family farmers and ranchers, he also holds the education of youth to a high standard. After graduating from St. Cloud State University with a degree in education, Dave spent 8 years teaching special education children. The Farmers Union philosophy regards education as one of their three most important principles. Having a leader with Dave's background and experience, the national organization is sure to continue its legacy of teaching our youth.

From 1986 to 1992, Dave served as a State senator in the Minnesota legislature. During this period, he served on a number of committees, including the rural development committee, the education committee, and the governmental operations committee. Because of Dave's commitment to rural development and legislation that he supported, the ethanol industry has become a primary rural development tool in Minnesota. Dave continued his commitment to rebuilding and strengthening rural communities while president of MFU. The experience that he brings to the table can only ensure that one of the most effective general farm organizations in America is in good hands.

Dave has made his first priority as president of NFU to see a good farm bill passed out of conference committee. He said, ''Farmers Union has worked hard throughout the House and Senate farm bill process, and we have much more work ahead of us, let's go back to Washington and work for a farm bill so that when you go back into your fields, you will know what kind of support you have behind you.''

I look forward to working with Dave on issues that not only affect South Dakota, but the entire fabric of rural America. The members of Farmers Union elected a true public servant, a leader with integrity, vision, and commitment. Again, congratulations to Dave Frederickson on his accomplishments of the past, and his commitment to the future of rural America in his new role as National Farmers Union president.●

THE DEATH OF LT. COL. HENRY ''HANK'' BARROWS, USAF, RET.

● Mr. McCAIN. Mr. President, I rise today to honor a great American patriot, Hank Barrows. Hank passed away unexpectedly on Monday, February 11 at his home in Washington, DC. My deepest sympathies go out to his wife, Suzanne, and his sons, Geoffrey and Brian.

Born in Bremerhaven, Germany on September 9, 1946, Hank emigrated with his family to the United States in 1960, settling in Westfield, NJ. Following his graduation from Westfields High School, Hank was accepted by Rutgers University, where he graduated in 1964 with a bachelors of arts degree in German.

Trained as a navigator following his graduation from Air Force Officers Candidate School, OCS, in 1969, Hank served two tours in Vietnam. In his first tour, Hank served as a EWO on a C–130 gunship and the second as a B–52 EWO during the Linebacker II Operations over North Vietnam. It was on December 19, 1972, during one of the Linebacker missions, that Hank was shot down and taken prisoner by the North Vietnamese. Hank was held prisoner in the infamous ''Hanoi Hilton'' until his release on March 29, 1973. After being released by the Vietnamese, he was assigned to the 343rd Strategic Reconnaissance Squadron at Offutt Air Force Base as an Electronic Intelligence intercept officer on the RC–135s.

His next assignment was to the 7575 Operations Group Operating Location A Support Squadron stationed at Rhein Main Air Force Base, Frankfurt, Germany flying in and out of Berlin as part of the freedom of the corridors mission. In recognition of his superior performance and expertise, Hank was reassigned in 1979 to United States Air Force-Europe, USAFE, headquarters in the office that managed airborne operations.

Hank returned to the U.S. in 1982 working in the Air Staff Intelligence Directorate in the Pentagon. He spent the last seven years of his distinguished Air Force career in the Defense Support Project Office. He finished that assignment as the Deputy Director for Airborne Reconnaissance.

Upon his retirement in 1992, Hank joined MRJ as a key member of the Mariner Support team. As a result of his superior performance on that team, he became the program manager for the Defense Airborne Reconnaissance Office, DARO, support contract. Having successfully managed that contract, Hank was promoted to the position of Division Manager. After the reorganization of MRJ, Hank was put in charge of the Development Systems Division, which later became the Development Systems Group when Veridian acquired MRJ. Hank's group consistently exceed their business goals each year.

In 2000, Hank received the Veridian Leadership Award. In nominating Hank for this award, he was cited for ''. . . accepting and tackling difficult and challenging business opportunities, his unique talent, his contagious enthusiasm and a belief that winning is for those willing to give their best.'' He was also cited for his ''. . . knack of finding and recruiting the best-qualified people for the planned growth of his division.'' In addition, he was recognized for ensuring that his team was kept well-informed, equipped with the right tools to do their jobs, and encouraging each individual to inject initiative and promote professional growth while increasing customer support.

Hank will be remembered in many ways by those who came to know him. We will remember Hank as an exemplary role model with vision, passion, and loyalty.●

NOMINATIONS DISCHARGED

The following nominations were discharged from the Committee on Health, Education, Labor, and Pension pursuant to the order of March 5, 2002:

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

Don V. Cogman, of Connecticut, to be a member of the National Council on the Arts for a term expiring September 3, 2006.

Katharine DeWitt, of Ohio, to be a member of the National Council on the Arts for a term expiring September 3, 2006.

Teresa Lozano Long, of Texas, to be a member of the National Council on the Arts for a term expiring September 3, 2006.

INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

The following bills and joint resolutions were introduced, read the first and second times by unanimous consent, and referred as indicated:

By Ms. COLLINS:

S. 1985. A bill to allow Federal securities enforcement actions to be predicated on State securities enforcement actions, to prevent migration of rogue securities brokers between and among financial services industries, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

By Mr. BINGAMAN (for himself and Mr. ROBERTS):

S. 1986. A bill to amend the Intermodal Surface Transportation Efficiency Act of 1991 to identify a route that passes through the States of Texas, New Mexico, Oklahoma, and Kansas as a high priority corridor on the National Highway System; to the Committee on Environment and Public Works.

By Mr. SMITH of New Hampshire (for himself, Mr. FEINGOLD, and Mr. MCCAIN):

S. 1987. A bill to provide for reform of the Corps of Engineers, and for other purposes; to the Committee on Environment and Public Works.

By Ms. LANDRIEU:

S. 1988. A bill to authorize the American Battle Monuments Commission to establish in the State of Louisiana a memorial to honor the Buffalo Soldiers; to the Committee on Energy and Natural Resources.

By Mr. SCHUMER (for himself and Mr. EDWARDS):

S. 1989. A bill to authorize the establishment of a National Cyber Security Defense Team for purposes of protecting the infrastructure of the Internet from terrorist attack; to the Committee on the Judiciary.

SUBMISSION OF CONCURRENT AND SENATE RESOLUTIONS

The following concurrent resolutions and Senate resolutions were read, and referred (or acted upon), as indicated:

By Mr. KERRY (for himself, Mr. BOND, Mr. LIEBERMAN, Mr. BURNS, Mr. CLELAND, Mr. BENNETT, Ms. LANDRIEU, Ms. SNOWE, Mr. EDWARDS, Mr. CRAPO, Ms. CANTWELL, Mr. ALLEN, Mr. ENSIGN, Mr. WELLSTONE, Mr. HARKIN, and Mr. LEVIN):

S. Res. 216. A resolution to honor Milton D. Stewart for his years of service in the Office of Advocacy of the Small Business Administration; considered and agreed to.

ADDITIONAL COSPONSORS

S. 514

At the request of Mr. SMITH of New Hampshire, the name of the Senator from Nevada (Mr. ENSIGN) was added as a cosponsor of S. 514, a bill to amend title 18 of the United States Code to provide for reciprocity in regard to the manner in which nonresidents of a State may carry certain concealed firearms in that State.

S. 548

At the request of Mr. HARKIN, the name of the Senator from New York (Mrs. CLINTON) was added as a cosponsor of S. 548, a bill to amend title XVIII of the Social Security Act to provide enhanced reimbursement for, and expanded capacity to, mammography services under the medicare program, and for other purposes.

S. 592

At the request of Mr. SANTORUM, the name of the Senator from Minnesota (Mr. DAYTON) was added as a cosponsor of S. 592, a bill to amend the Internal Revenue Code of 1986 to create Individual Development Accounts, and for other purposes.

S. 724

At the request of Mr. BREAUX, the name of the Senator from South Dakota (Mr. DASCHLE) was added as a cosponsor of S. 724, a bill to amend title XXI of the Social Security Act to provide for coverage of pregnancy-related assistance for targeted low-income pregnant women.

S. 917

At the request of Ms. COLLINS, the name of the Senator from Missouri (Mrs. CARNAHAN) was added as a cosponsor of S. 917, a bill to amend the Internal Revenue Code of 1986 to exclude from gross income amounts received on account of claims based on certain unlawful discrimination and to allow income averaging for backpay and frontpay awards received on account of such claims, and for other purposes.

S. 946

At the request of Ms. SNOWE, the name of the Senator from Missouri (Mrs. CARNAHAN) was added as a cosponsor of S. 946, a bill to establish an Office on Women's Health within the Department of Health and Human Services.

S. 999

At the request of Mr. BINGAMAN, the name of the Senator from Rhode Island (Mr. REED) was added as a cosponsor of S. 999, a bill to amend title 10, United States Code, to provide for a Korea Defense Service Medal to be issued to members of the Armed Forces who participated in operations in Korea after the end of the Korean War.

S. 1022

At the request of Mr. WARNER, the name of the Senator from Maine (Ms. SNOWE) was added as a cosponsor of S. 1022, a bill to amend the Internal Revenue Code of 1986 to allow Federal civilian and military retirees to pay health insurance premiums on a pretax basis and to allow a deduction for TRICARE supplemental premiums.

S. 1220

At the request of Mr. BREAUX, the name of the Senator from Maine (Ms. SNOWE) was added as a cosponsor of S. 1220, a bill to authorize the Secretary of Transportation to establish a grant program for the rehabilitation, preservation, or improvement of railroad track.

S. 1375

At the request of Mr. DORGAN, the name of the Senator from Massachusetts (Mr. KERRY) was added as a cosponsor of S. 1375, a bill to amend the Internal Revenue Code of 1986 to allow tax-free distributions from individual retirement accounts for charitable purposes.

S. 1523

At the request of Mrs. FEINSTEIN, the name of the Senator from Maine (Ms. SNOWE) was added as a cosponsor of S. 1523, a bill to amend title II of the Social Security Act to repeal the Government pension offset and windfall elimination provisions.

S. 1686

At the request of Mr. KENNEDY, the name of the Senator from Hawaii (Mr. INOUYE) was added as a cosponsor of S. 1686, a bill to amend title XVIII of the Social Security Act to provide for patient protection by limiting the number of mandatory overtime hours a nurse may be required to work in certain providers of services to which payments are made under the medicare program.

S. 1712

At the request of Mr. GRASSLEY, the name of the Senator from Mississippi (Mr. COCHRAN) was added as a cosponsor of S. 1712, a bill to amend the procedures that apply to consideration of interstate class actions to assure fairer outcomes for class members and defendants, and for other purposes.

S. 1917

At the request of Mr. JEFFORDS, the name of the Senator from Indiana (Mr. LUGAR) was added as a cosponsor of S. 1917, a bill to provide for highway infrastructure investment at the guaranteed funding level contained in the Transportation Equity Act for the 21st Century.

S. 1926

At the request of Mr. KERRY, the names of the Senator from Florida (Mr. NELSON), the Senator from Illinois (Mr. DURBIN), the Senator from Hawaii (Mr. INOUYE), the Senator from Washington (Mrs. MURRAY), and the Senator from Vermont (Mr. JEFFORDS) were added as cosponsors of S. 1926, a bill to improve passenger automobile fuel economy and safety, reduce greenhouse gas emissions, reduce dependence on foreign oil, and for other purposes.

S. 1945

At the request of Mr. JOHNSON, the names of the Senator from Colorado (Mr. ALLARD), the Senator from Michigan (Ms. STABENOW), and the Senator from Indiana (Mr. BAYH) were added as cosponsors of S. 1945, a bill to provide for the merger of the bank and savings association deposit insurance funds, to modernize and improve the safety and fairness of the Federal deposit insurance system, and for other purposes.

S. RES. 206

At the request of Mr. MURKOWSKI, the name of the Senator from New Mexico (Mr. BINGAMAN) was added as a cosponsor of S. Res. 206, a resolution designating the week of March 17 through March 23, 2002 as ''National Inhalants and Poison Prevention Week''.

S. RES. 207

At the request of Mr. BINGAMAN, the names of the Senator from Louisiana

(Mr. BREAUX), the Senator from Idaho (Mr. CRAPO), the Senator from North Carolina (Mr. HELMS), the Senator from Colorado (Mr. CAMPBELL), the Senator from Idaho (Mr. CRAIG), the Senator from North Dakota (Mr. DORGAN), the Senator from Massachusetts (Mr. KENNEDY), the Senator from Massachusetts (Mr. KERRY), the Senator from Maryland (Ms. MIKULSKI), the Senator from Alaska (Mr. MURKOWSKI), the Senator from West Virginia (Mr. ROCKEFELLER), the Senator from Maryland (Mr. SARBANES), and the Senator from Michigan (Ms. STABENOW) were added as cosponsors of S. Res. 207, a resolution designating March 31, 2002, and March 31, 2003, as ''National Civilian Conservation Corps Day.''

S. RES. 214

At the request of Mr. SPECTER, the name of the Senator from Florida (Mr. NELSON) was added as a cosponsor of S. Res. 214, a resolution designating March 25, 2002, as ''Greek Independence Day: A National Day of Celebration of Greek and American Democracy.''

AMENDMENT NO. 2915

At the request of Ms. COLLINS, the name of the Senator from Colorado (Mr. ALLARD) was added as a cosponsor of amendment No. 2915 proposed to S. 565, a bill to establish the Commission on Voting Rights and Procedures to study and make recommendations regarding election technology, voting, and election administration, to establish a grant program under which the Office of Justice Programs and the Civil Rights Division of the Department of Justice shall provide assistance to States and localities in improving election technology and the administration of Federal elections, to require States to meet uniform and nondiscriminatory election technology and administration requirements for the 2004 Federal elections, and for other purposes.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Ms. COLLINS:

S. 1985. A bill to allow Federal securities enforcement actions to be predicated on State securities enforcement actions, to prevent migration of rogue securities brokers between and among financial services industries, and for other purposes; to the Committee on Banking, Housing, and Urban Affairs.

Ms. COLLINS. Mr. President, today I am introducing the Microcap Fraud Prevention Act of 2001. This bill will close loopholes in the enforcement of our securities laws and furnish Federal authorities with the tools they need to combat growing fraud in the microcap securities market. While the Enron debacle has focused attention on the need for tougher and fuller financial disclosure standards to protect small investors, microcap fraud costs investors an estimated $6 billion every year.

I first introduced this bill in the 106th Congress after extensive examination by the Senate's Permanent Subcommittee on Investigations, which I chaired. I am pleased that the North American Securities Administrators Association, which is made up of our Nation's State securities regulators, has once again sent me a letter of strong support and has made passage of legislation such as this one of its top legislative priorities.

Today's securities markets are much different than they were even a decade ago. Many more people own securities than ever before. The rise of the Internet has allowed investors greater access to market information and investment advice. Unfortunately, not all of this information and advice has been sound, or even honest.

These problems are exacerbated in the microcap market. Microcap stocks are those of smaller, thinly capitalized companies. Because the individual share prices may be higher than a certain threshold, however, they may avoid regulation as ''penny stocks.'' Because investors typically know little of these companies, their share prices are easier to manipulate due to the small amount of total capital. They are often less regulated than the securities of larger companies and, therefore, they can pose difficult challenges for law enforcement and unique opportunities for dishonest brokers.

It is this combination of a microcap company's low capitalization, making its share price more easily manipulable, and obscurity, along with high-pressure sales tactics, that make microcap stocks so appealing to the more dishonest elements in our securities markets.

Frequently, salesmen will call customers, pitching these investments with high pressure sales tactics. More sophisticated scams involve a practice known as the ''pump and dump'' where a securities firm that has purchased a large block of a microcap company's stock will market it aggressively and quickly to investors. As a result of the surge in demand, the share's price will rise sharply but temporarily, despite the unchanged fundamentals underlying the stock's price.

After a short time, investors will realize that the company's performance does not merit its new share price. The stock's share price will then plummet, but the firm will by then have unloaded its shares, leaving investors holding the bag. In other cases, however, dishonest brokers and firms simply fail to execute sales orders or otherwise commit garden variety theft masquerading as securities transactions, such as churning or making unsuitable recommendations.

States prosecute these criminals activities with some success and often obtain orders prohibiting further securities activities by bad actors within their jurisdiction. Because such an order ends at a State's borders, however, the defendants can simply pick up, move to a new State, and begin their schemes anew. In contrast, a Federal order would have effect nationwide. Because Federal law enforcement resources are limited, however, there is only so much it can do, and many smaller time criminals can continue to operate below the federal government's radar screen. My bill would institute several reforms to address these problems.

First, it would allow the SEC to take enforcement actions against brokers and firms on the basis of those already concluded by state agencies. Although States may base their actions on Federal actions, the reverse is not true. As a result, the SEC must duplicate the State's efforts to provide nationwide protection to investors. By allowing the SEC to base disciplinary actions on those concluded by states, the State's disciplinary actions can be given effect nationwide, when appropriate, without the SEC's having to commit significant amounts of additional resources.

Second, the bill would allow the SEC to keep those who commit any type of financial fraud from participating in the microcap market. Currently, the SEC can ban those who commit securities violations. But the SEC should have the poser to discipline those who commit other types of financial services offenses as well.

Third, this bill would broaden provisions designed to prevent fraud in the penny stock market. Under current law, the SEC can suspend or bar those who commit fraud in this market. However, brokers so barred can turn around and commit the same types of offenses in the microcap market because their individual share prices might exceed $5 per share, even though the total capitalization amount is small enough to lend itself to easy manipulation. The penny stock market ban needs to be expanded to the microcap market as well.

Fourth, the statutory officer and director bar would be expanded to cover all publicly traded companies. Currently, this bar only applies to companies that report to the SEC, leaving open the possibility that those who have been barred from serving in these companies could serve in others that are exempt from reporting. Companies involved in microcap schemes are frequently traded over the counter and are not covered by the bar. Under my bill, this bar would extend to all publicly traded companies.

Finally, the bill would allow the SEC to enforce its own orders and court injunctions against repeat offenders directly rather than waiting for the Justice Department to initiate contempt proceedings. Instead the SEC would be able to seek immediate civil penalties for repeat violations without the delay that can occur from the initiation of contempt proceedings.

These are common sense, measured steps that can make a real difference in the level of protection that we provide to investors, many of whom are new to our capital markets. I would urge the Senate to consider and pass the

Microcap Fraud Prevention Act quickly. Mr. President, I ask unanimous consent that the letter of support from the NASAA be printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

NASAA,
Washington, DC, November 15, 2001.

Hon. SUSAN M. COLLINS,
U.S. Senate,
Washington, DC.

DEAR SENATOR COLLINS: On behalf of the membership of North American Securities Administrators Association, Inc. (NASAA), I commend you for recognizing and confronting the problem of fraud in the microcap securities market. We appreciate your efforts to protect the investing public from frauds in low-priced securities, and for your plans to introduce legislation to enhance enforcement efforts in this area.

As you know, several years ago, state securities administrators recognized the problem of fraud in the microcap market. Since then the states have led enforcement efforts and filed numerous actions against microcap firms. There are systematic problems in this area, but they can be addressed effectively if state and federal regulators and policymakers work together on meaningful solutions.

NASAA wholeheartedly supports the intent of The Microcap Fraud Prevention Act of 2001. It would be an important step in combating abuses in the microcap market and maintaining continued public confidence in our markets.

We applaud your leadership in the fight against microcap fraud, and I pledge the support of NASAA's membership to continue to work with you to secure passage of this important legislation.

Sincerely,

JOSEPH P. BORG,
Alabama Securities Director,
NASAA President.

By Mr. BINGAMAN (for himself and Mr. ROBERTS):

S. 1986. A bill to amend the Intermodal Surface Transportation Efficiency Act of 1991 to identify a route that passes through the States of Texas, New Mexico, Oklahoma, and Kansas as a high priority corridor on the National Highway System; to the Committee on Environment and Public Works.

Mr. BINGAMAN. Mr. President, I rise today to introduce legislation that will enhance the future economic vitality of communities in Otero, Lincoln, Torrance, Guadalupe, and Quay Counties. By improving the transportation infrastructure, I believe this legislation will help attract good jobs to South, Central, and Eastern New Mexico.

The bill we are introducing today designates U.S. Highway 54 from the border with Mexico at El Paso, TX, through New Mexico, and Oklahoma to Wichita, KS, as the Southwest Passage Initiative for the Regional and Interstate Transportation, or the Southwest Passage, corridor. Congress has already included Highway 54 as part of the National Highway System. The bill designates the Southwest Passage as a High Priority Corridor on the National Highway System.

I am honored to have my good friend and colleague, Senator ROBERTS, as a cosponsor of the bill. Our goal with this designation is to promote the development of this 700-mile route into a full four-lane divided highway. About half of the SPIRIT corridor is in New Mexico and another 200 miles of it are in Kansas.

I continue to believe strongly in the importance of highway infrastructure for economic development in my state. Even in this age of the new economy and high-speed digital communications, roads continue to link our communities together and to carry the commercial goods and products our citizens need. Safe and efficient highways are especially important to citizens in the rural parts of New Mexico.

It is well known that regions with four-lane highways more readily attract out-of-state visitors and new jobs. Truck drivers and the traveling public prefer the safety of a four-lane divided highway.

In New Mexico, US 54 is a fairly level route, bypassing New Mexico's major mountain ranges. The route also traverses some of New Mexico's most dramatic scenery, including one of the State's popular designated Scenic Byways. The Mesalands Scenic Byway is located in Guadalupe, San Miguel and Quay Counties, incorporating the beautiful tablelands known as El Llano Estacado. The SPIRIT corridor also passes through Alamogordo, home of the New Mexico Museum of Space History, and gateway to the stunning White Sands National Monument.

The route of the Southwest Passage starts at Juarez, Chihuahua, Mexico, home of one the largest concentrations of manufacturing in the border region. As a result of increased trade under NAFTA, commercial border traffic is already increasing at the border crossings in El Paso, TX, and Santa Teresa, NM. In New Mexico, truck traffic from the border has risen to over 1000 per day and is expected to triple in the next twenty years. The SPIRIT corridor is perfectly situated to serve international trade and promote economic development along its entire route. The route provides direct connections to four major Interstate Highways: I–10, I–35, I–40, and I–70. SPIRIT is also the shortest route between Chicago and El Paso, shaving 137 miles off the major alternative.

Though much of US 54 is currently only two lanes, traffic has been rising dramatically along the entire route since NAFTA was implemented. In New Mexico, total daily traffic levels are nearing 10,000 and are projected to rise to 30,000, with trucks making up 35 percent of the total. In Oklahoma, traffic levels are up to 6,500 per day, 40 percent of which are commercial trucks. These traffic statistics clearly reflect the SPIRIT corridor's attraction to commercial and passenger drivers.

New Mexicans recognize the importance of efficient roads to economic development and safety. I have long supported my State's efforts to complete the four-lane upgrade of US 54. The State Highway and Transportation Department now rates the project a high priority for New Mexico. The four-lane upgrade of the first 56-mile segment from the Texas border to Alamogordo is underway and will be completed in the next year. Two more sections in New Mexico remain to be upgraded: 163 miles from Tularosa, north through Carrizozo, Corona, and Vaughn to Santa Rosa and 50 miles from Tucumcari to the Texas border near Nara Vista in Quay County. The cost to four-lane these two segments is estimated at $329 million and $85 million, respectively. I am committed to working to help secure the funding required to complete New Mexico's four-lane upgrade as soon as possible. I am pleased the other States are also moving quickly to four-lane their portion of the route. I hope designating SPIRIT as a High Priority Corridor on the National Highway System will help spur the completion of this project.

Once the SPIRIT corridor is designated, New Mexico will have four high-priority corridors on the National Highway System. The other three are the Ports-to-Plains corridor, the Camino Real Corridor, and the East West Transamerica Corridor. These four trade corridors, as well as our close proximity to the border, strongly underscore the vital role New Mexico plays in our Nation's international transportation network.

The SPIRIT project has broad grassroots support. Most of the cities, counties, and chambers of commerce all the way from Wichita to El Paso have passed resolutions of support for the four-lane upgrade of US 54 along the entire corridor.

I do believe the four-lane upgrade of Highway 54 is vital to the continued economic development for all of the communities along the SPIRIT corridor in New Mexico.

I again thank Senator ROBERTS for cosponsoring the bill, and I hope all Senators will join us in support of this important legislation.

Mr. President, I ask unanimous consent that the text of the bill be printed in the RECORD.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 1986

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SOUTHWEST PASSAGE INITIATIVE FOR REGIONAL AND INTERSTATE TRANSPORTATION.

Section 1105(c) of the Intermodal Surface Transportation Efficiency Act of 1991 (105 Stat. 2032) is amended by adding at the end the following:

''(45) The corridor extending from the point on the border between the United States and Mexico in the State of Texas at which United States Route 54 begins, along United States Route 54 through the States of Texas, New Mexico, Oklahoma, and Kansas, and ending in Wichita, Kansas, to be known as the 'Southwest Passage Initiative for Regional and Interstate Transportation Corridor' or 'SPIRIT Corridor'.''.

By Mr. SMITH of New Hampshire (for himself, Mr. FEINGOLD, and Mr. MCCAIN):

S. 1987. A bill to provide for reform of the Corps of Engineers, and for other purposes; to the Committee on Environmental and Public Works.

Mr. SMITH of New Hampshire. Mr. President, together with my friend from Arizona, Mr. MCCAIN, and my friend from Wisconsin, Mr. FEINGOLD, I am introducing the Corps of Engineers Modernization and Improvement Act of 2002. ''Corps Reform'', as it is frequently billed, has been the subject of much heated debate over the last two years. In fact, the Water Resources Development Act of 2000 included a provision on independent peer review, requested by Senator FEINGOLD.

Since that time, it has become clear to me that we need to aggressively address a broad range of issue endemic in the Corps. That is why I am before you today, introducing this bill. The Corps has been the subject of ''the Fleecing of America'' too many times. My primary goal is to ensure that Federal taxpayer dollars are spent wisely, on sound investments that are in the national interest. Our bill achieves this goal by addressing the mammoth backlog of projects that plagues the Corps; changing the cost-benefit ratio that a project must meet in order to be economically justified; updating of the Principles and Guidelines; instituting independent review of certain projects; amending some of the cost-share requirements; and limiting the waivers of non-Federal cost-shares often granted to communities.

It has been projected that there is currently a construction backlog of well over $40 billion in authorized projects, with annual appropriations for the construction account of the civil works mission averaging around $1.8 billion. As such, the majority of the projects in the backlog will never see a Federal dime. While a great number of these projects are meritorious and deserve funding, others are not in the Corps mission, are no longer economically justified, or violate non-Federal cost-share requirements.

Our bill would require the Corps to provide a list of projects in the backlog, categorizing each project as ''active,'' ''deferred,'' ''inactive.'' There would be a deauthorization mechanism, more stringent than current law, for projects that have never received construction funds, for projects that have been suspended, and for those that don't pass economic muster.

In addition, there are projects ''on the books'' that are more than 25 years old, which have never received construction funds. These projects should be deauthorized immediately. The Environment and Public Works Committee can authorize a restudy if any of these projects are thought to have modern benefits and meet the requisite standards.

Currently, projects are only required to meet a 1:1 cost-benefit ratio. I find this appalling. No one would invest in the stock market at such a return. According to the Taxpayers for Common Sense, 36 percent of the 310 major projects authorized since 1986 have been authorized with a benefit-to-cost ratio of less than 1.5. Construction of these projects would cost more than $7 billion. Especially in these times of war and deficit spending, taxpayers cannot afford, nor should be asked to fund such projects. My bill would require that projects return benefits that are one and a half times the project costs, a vast improvement over current practice.

My friends, do not fear deauthorization. It is a cleansing process, getting the inactive projects off the books will only serve to better the chances of completed funding for those projects that remain.

I would also like to highlight the independent review provision in my bill. WRDA 2000 required the National Academy of Sciences to issue a report making recommendations on the effectiveness of independent peer review. Many will ask, why not wait until the Academy's report is issued before addressing this issue in legislation. I would like to explain to my colleagues, if the Academy makes recommendations that differ from what I have included in this bill, I am open to making refinements as this bill moves through the legislative process. But I wanted to include a provision on independent review to highlight the importance of the issue, as well as my belief that such review will help restore integrity to the Corps and its study processes.

Let me say a word about cost-shares. I think it is important that a non-Federal sponsor partner with the Federal Government in the advancement of Corps of Engineers projects. The landmark WRDA 1986 established most of the modern cost-share formulas. But some of these cost share arrangements could be stronger. For example, the benefits realized by beach replenishment projects are highly localized. The non-Federal interests should thus be responsible for a larger portion of the replenishment costs. I also believe that there should be a financial incentive, in the form of a better cost share, for non-structural flood damage reduction projects. This only seems logical from a financial sense, as well as an environmental standpoint. And as for the costs associated with the Inland Waterways system, IWS, there should be a distinction between those segments of the System that carry most of the traffic and those that are underutilized. Approximately 30 percent of the Operations and Maintenance funds are devoted to segments of the IWS that realize a mere 3 percent of the traffic. My bill attempts to address this issue by reformulating how O&M costs are paid.

I say to my friends, my intention here is not to beat up on the Corps of Engineers. As the ranking Republican on the Senate Environment and Public Works Committee, I have a great deal of respect for the Chief of Engineers and the Assistant Secretary of the Army for Civil Works. This bill should not be interpreted as a statement on their effectiveness. I merely want to implement mechanisms to make the Agency more fiscally responsible. The taxpayers deserve our attention to this matter.

I realize that many of my distinguished colleagues will oppose our efforts to improve and modernize the Corps of Engineers. I daresay, part of the problem is that any meaningful reform of the Corps will require a reform of the practices of Congress, as well. If your project is meritorious, if it has local support and adheres to cost-sharing requirements and cost-benefit ratio, if your project is in the Corps mission, you need not worry. This bill is about clearing the way for projects that warrant the taxpayers' investment.

As for where we go from here, the Senate Environment and Public Works Committee will hold a hearing on the issue of Corps Reform in the upcoming months. I expect this bill to be part of the debate of the hearing.

Average Americans toil all day long, and some, all night, trying to make meager ends meet. How can I look these Americans in the eye and say, your tax dollars pay to maintain a waterway that sees two barges a year or to replenish the sand on a beach where the median home price is $1.5 million? Taxpayers' hard-earned money should not be devoted to pouring sand on the beaches of the wealthy. Taxpayer dollars should be spent more wisely than to maintain deadbeat waterways. Particularly during this time of belt-cinching, we should show more fiscal restraint!

I would like to quote another Mr. Smith, that is, Mr. Smith of Maine, who served on the House Committee of Ways and Means in the days before this country was embroiled in Civil War. Mr. Smith, in a Report of the Ways and Means Committee dated February 10, 1836 wisely counseled: ''Heedless and useless or unavailable expenditure of the public treasury are alike to be avoided in all legislation.'' He further noted: ''Every Government . . . is susceptible of acquiring habits of lavish expenditure and extravagance in its operations.'' Every Government ''requires constant watching to preserve its own purity.'' Well, folks, I am here to say, our government's practices are not pure. But there is something that we can do about it.

Corps Reform. It's going to be an uphill battle, but it's a start. I challenge, not just my fiscally conservative friends, but all my colleagues, to put aside their parochial interests for the general good of the taxpayers' hard-earned money.

As we move forward, please understand that I am open to suggestions as to how to improve upon the ideas embodied in this bill. I want to work together with my colleagues to make

this bill as meaningful, responsive, and responsible as possible.

Please join me in advancing this fiscally responsible legislation.

Our bill is supported by taxpayer advocacy groups such as the Taxpayers for Common Sense, National Taxpayers Union, Citizens Against Government Waste, as well as environmental groups, for example, National Wildlife Federation and Environmental Defense. I have some letters of support and ask unanimous consent that they be printed in the RECORD.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

ENVIRONMENTAL DEFENSE,
March 5, 2002.

Senator BOB SMITH,
Ranking Member, Senate Committee on Environment and Public Works, U.S. Senate, Washington, DC.

DEAR SENATOR SMITH: Environmental Defense strongly supports the Corps of Engineers Modernization and Improvement Act of 2002 and applauds your efforts to restore trust in the Corps' planning process and to focus scarce federal funds on economically and environmentally sound civil works projects.

The Corps has an important role to play in the management of the nation's water resources, including the restoration of ecosystems like the Everglades, Coastal Louisiana, and the Columbia, Snake, Mississippi and Missouri rivers. Unfortunately, scarce federal funds are frequently wasted on projects with few economic benefits and high environmental costs.

We believe the Corps of Engineers Modernization and Improvement Act of 2002 will move to accelerate the construction of nationally critical projects by prioritizing and shrinking the Corps' $52 million backlog, subjecting questionable projects to greater review, and by asking cost-sharing partners to share a larger portion of project costs. Too many Corps projects have failed to generate predicted benefits—including many segments of the inland waterway system—and too many projects with questionable economic benefits continue to be constructed.

We are aware that powerful special interests will oppose these changes to bring basic fiscal sense to federal funding for water projects. It takes an exceptional degree of principal and courage to take on these interests. We are confident, however, that your leadership on this issue can make a big difference.

We applaud your efforts to restore trust in the Corps' planning process and to focus scarce federal funds on economically and environmentally sound projects.

Sincerely,

SCOTT FABER,
Water Resources Specialist.

TIMOTHY SEARCHINGER,
Senior Attorney.

MARCH 5, 2002.

Senator ROBERT SMITH,
Ranking Member, Environment and Public Works Committee, Dirksen Senate Office Building, Washington, DC.

Senator RUSSELL FEINGOLD,
Hart Senate Office Building, Washington, DC.

Senator JOHN MCCAIN,
Russell Senate Office Building, Washington, DC.

DEAR SENATORS SMITH, FEINGOLD, AND MCCAIN: Taxpayers for Common Sense commends you for introducing the Corps of Engineers Modernization and Improvement Act of 2002.

This legislation could stop more than $15 billion of wasteful spending at the U.S. Army Corps of Engineers by deauthorizing wasteful and outdated projects, limiting the Corps to only building projects within its mission, requiring greater accountability in its project planning process, and increasing the non-Federal contributions to project costs. With the return of budget deficits the timing and need for this legislation could not be greater.

As early as 1836, Members of Congress started raising questions about cost overruns and mismanagement by the Corps in constructing water projects. Back then, Congressman Francis O. Smith from Maine, Chairman of the House Ways and Means Committee, rebuked the Corps for a host of problems in constructing 25 wasteful projects in the committee report on the Harbors and Rivers Act.

More than 160 years later, Taxpayers for Common Sense and National Wildlife Federation published a report criticizing the Corps for pursuing 25 other projects that would waste more than $6 billion of federal taxpayer money.

A steady stream of Congressional authorizations of new projects over the last two decades has swelled the Corps' construction backlog to $52 billion. However, despite a 50% increase in the Crops' construction backlog over the last six years, it would still take the agency more than 25 years to construct all of those projects at current funding levels assuming no new projects were authorized.

The reluctance of many Members of Congress to criticize wasteful spending has created this enormous backlog, leading to a situation where everyone loses because no projects are getting built. A Taxpayers for Common Sense analysis of the backlog found that the typical Corps project was only 24% completed, based upon the median rate of completion. Legitimate projects, like operation and maintenance of high-volume waterways, are suffering at the hands of ''mission creep'' projects like the $311 million Grand Prairie Irrigation project in east Arkansas, a project that even the farmers who the Corps identified as the beneficiaries oppose.

Unfortunately, the Corps has not taken measures to alleviate these problems. Instead, last week at Senate Budget Committee hearings, Assistant Secretary of the Army Mike Parker and Lt. Gen. Robert Flowers half-heartedly defended President Bush's FY03 budget request while testifying that the way to reduce the backlog was to give the Corps a raise this year from $4 billion to $6.4 billion, a 60% increase over the President's request.

The Corps has become embroiled in several scandals over the manipulated and shoddy evaluation of project studies. In the most infamous case, the Army Inspector General reprimanded three senior Corps officials for ''cooking the books'' to bias a study of lock expansions on the Upper Mississippi and Illinois Rivers so that the results favored a $1.2 billion project alternative. In the last two years, five other major Corps projects have been found through independent economic analyses to be unjustified: the $360 million Delaware River deepening project, the $188 million Columbia River deepening project, the $127 million Dallas Floodway Extension project, the $108 million Oregon Inlet Jetties project, and the $40 million Chesapeake and Delaware Canal deepening project.

Clearly, the Corps is incapable of producing objective analyses of projects. This is why the independent peer review provisions of your bill are so critical. Taxpayers deserve better accountability for how their hard earned tax dollars are being spent.

The Corps doesn't need a raise, it just needs a good dose of common sense. Like all taxpayers faced with a tight budget, the Corps must be forced to prioritize and focus on the projects it does best within its mission.

With pursuit of the reforms in this bill, you will be building upon a notable legacy left by President Reagan in 1986. That year, Congress agreed to his landmark cost sharing rules that required local beneficiaries to pay a share of each project. Not only will you be following in Reagan's footsteps, but you are charting a new course for the further of water resources development in America. On behalf of taxpayers, thank you for your leadership on this important matter.

Sincerely,

JOE THEISSEN,
Executive Director.

Mr. FEINGOLD. Mr. President, I rise today to join the Senator from New Hampshire, Mr. SMITH, in introducing the Corps of Engineers Modernization and Improvement Act of 2002. I am very pleased to be working with him on this issue, and admire his dedication to fiscal responsibility as embodied in this measure.

As the Senator from New Hampshire, Mr. SMITH, and I introduce this bill, we realize that Corps Reform is a work in progress. Reforming the Corps of Engineers will be a difficult task for Congress. It involves restoring credibility and accountability to a Federal agency rocked by scandals and constrained by endlessly growing authorizations and a gloomy Federal fiscal picture, and yet an agency that Wisconsin, and many other States across the country, have come to rely upon. From the Great Lakes to the mighty Mississippi, the Corps is involved in providing aids to navigation, environmental remediation, water control and a variety of other services to my state. My office has strong working relationships with the Detroit, Rock Island, and St. Paul District Offices that service Wisconsin, and I want the fiscal and management cloud over the Corps to dissipate so that the Corps can continue to contribute to our environment and our economy.

This legislation evolved from my experience in seeking to offer an amendment to the Water Resources Development Act of 2000 to create independent review of Army Corps of Engineers' projects. In response to my initiative, the bill's managers, which included the Senator from New Hampshire, Mr. SMITH, and the then Chairman, the Senator from Montana, Mr. BAUCUS, adopted an amendment as part of their Manager's Package which should help get the Authorizing Committee, the Environment and Public Works Committee, the additional information it needs to develop and refine legislation on this issue through a study by the National Academy of Sciences, NAS, on peer review.

Earlier this Congress, I introduced the Corps of Engineers Reform Act of 2001, S. 646. The measure the Senator from New Hampshire and I introduce

today includes many provisions that were included in my original bill, and codifies the idea of independent review of the Corps about which we agreed in the 2000 Water Resources bill. It also provides a mechanism to speed up completion of construction for good Corps projects with large public benefits by deauthorizing low priority and economically wasteful projects. The bill put forward bold concepts. It streamlines the existing automatic deauthorization process. Under the bill a project authorized for construction but never started is deauthorized if it is denied appropriations funds towards completion of construction for five straight years. In addition, a project that has begun construction but denied appropriations funds towards completion for three straight years. The bill also preserves Congressional prerogative over setting the Corps' construction priorities by allowing Congress a chance to reauthorize any of these projects before they are automatically deauthorized. This process will be transparently to all interests, because the bill requires the Corps to make an annual list of projects in the construction backlog available to Congress and the public at large via the Internet. The bill also allows a point of order to be raised in the Senate against projects included in legislation for which the Corps has not completed necessary studies determining that a project is economically justified and in the federal interest.

The Senator from New Hampshire and I came to a meeting of the minds on the issue of independent review of Corps projects. But the bill we introduce today is much more than that. It is a comprehensive revision of the project review and authorization procedures at the U.S. Army Corps of Engineers. Our joint goal is to have the Corps to increase transparency and accountability, to ensure fiscal responsibility, and to allow greater stakeholder involvement in their projects. We are committed to that goal, and to seeing Corps Reform enacted as part of this year's Water Resources bill.

I also look forward, to the upcoming hearing process, and stand ready to work with the Senator from New Hampshire in merging the bill we introduce today with S. 646, my bill from earlier this Congress. My bill, S. 646, which is sponsored in the other body by my colleague from Wisconsin, Representative KIND, includes a number of important concepts that are central to environmental protection and that should be part of Corps Reform.

The Corps is required to mitigate the environmental impacts of its projects in a variety of ways, including by avoiding damaging wetlands in the first place and either holding other lands or constructing wetlands elsewhere when it cannot avoid destroying them. The Corps requires private developers to meet this standard when they construct projects as a condition of receiving a federal permit, and I think the federal government should live up to the same standards. Too often, the Corps does not complete required mitigation and enhances environmental risks. I feel very strongly that mitigation must be completed, that the true costs of mitigation should be accounted for in Corps projects, and that the public should be able to track the progress of mitigation projects. In addition, the concurrent mitigation requirements of S. 646 would actually reduce the total mitigation costs by ensuring the purchase of mitigation lands as soon as possible. I look forward to exploring these ideas with the Senator from New Hampshire as we work to produce a final product.

I feel that this bill is an important step down the road to a reformed Corps of Engineers. This bill establishes a framework to catch mistakes by Corps planners, deter any potential bad behavior by Corps officials to justify questionable projects, end old unjustified projects, and provide planners desperately needed support against the never ending pressure of project boosters. Those boosters, include Congressional interests, which is why I believe that this body needs to champion reform—to end the perception that Corps projects are all pork and no substance.

I wish it were the case, that I could argue that the changes we are proposing today were not needed, but unfortunately, I see that there is need for this bill. I want to make sure that future Corps projects no longer fail to produce predicted benefits, stop costing the taxpayers more than the Corps estimated, do not have unanticipated environmental impacts, and are built in an environmentally compatible way. This bill will help the Corps do a better job which is what the taxpayers and the environment deserve.

By Ms. LANDRIEU:

S. 1988. A bill to authorize the American Battle Monuments Commission to establish in the State of Louisiana a memorial to honor the Buffalo Soldiers; to the Committee on Energy and Natural Resources.

Ms. LANDRIEU. Mr. President, one hundred and thirty five years ago, before the term Homeland Security was even coined, a group of men devoted themselves to securing the frontiers of this Nation. They protected Americans in their homes; they deterred hostile invaders, and they secured the blessings of liberty to the people of this land. Even more remarkable, they secured these blessings for others, while they could not fully enjoy them themselves.

I am referring to the Buffalo Soldiers. These brave men instituted a tradition of professional military service for African Americans that stretches one hundred and thirty five years to our triumphs occurring this very day. African Americans military service is as old as our Nation. There were black soldiers during the revolution, a unit of free black men played a pivotal rule in the Battle of New Orleans, and the exploits of African Americans during the Civil War have been captured in novels and on film. However, it was not until the Army Reorganization Act of 1866 that soldiering and service to country became a realistic option for African Americans seeking to improve their quality of life. In so doing, they raised the bar of freedom, and revealed the injustice of preventing the defenders of democracy from fully participating in it.

The city of New Orleans, and the State of Louisiana have a rich history, and have, over the years given more than their fair share of sons in service to their Nation. Much of this history is commemorated around the city. Yet these great sons of New Orleans remain unacknowledged in their home. For in Louisiana's great military tradition, surely one of its greatest military contributions were the 9th Cavalry Regiment and the 25th Infantry Regiment.

These two forces, recruited and organized in New Orleans, represent half of all the units of buffalo soldiers. The 9th Cavalry alone constituted 10 percent of all the American cavalry. Their list of adversaries reads like a who's who of the Old West, Geronimo, Sitting Bull, Poncho Villa. In movies, when settlers encounter Apaches, the cavalry always comes to the rescue. Yet how many times were the cavalry that rode over the horizon African Americans? Of course, the reality is that the Buffalo Soldiers comprised some of our Nations most capable and loyal troops. Despite suffering the worst deprivations known to any American soldiers of the period, their desertion rates were the lowest in the Army. The 9th Cavalry was awarded 15 Congressional Medals of Honor, including two to native Louisianians First Sergeant Moses Williams and Sergeant Emmanuel Stance.

For these reasons, I am offering legislation that would authorize the creation of a suitable memorial in New Orleans for these gallant soldiers. There is an excellent statue to the Buffalo Soldiers at Fort Leavenworth Kansas. It commemorates the 10th Cavalry Regiment stationed there. However, I believe that these men deserve to be recognized in their home city. Furthermore, it should be in a location where thousands of visitors will have the opportunity to come to appreciate the legacy of the Buffalo Soldiers. I believe that the city of New Orleans is the perfect location.

This Nation has sadly found the need to say thank you to its servicemen and women after the fact on more than one occasion. Unfortunately, this is another. We are fortunate to have living memories of the 9th and 10th Cavalry Regiments today. The regiments were not disbanded until the conclusion of World War Two, where they served with distinction. We should take this opportunity to honor these veterans, and in so doing, honor the principles of liberty, freedom, and democracy for which they fought and sacrificed. They have given so much to their Nation, we

owe them this public expression of gratitude.

SUBMITTED RESOLUTIONS

SENATE RESOLUTION 216—TO HONOR MILTON D. STEWART FOR HIS YEARS OF SERVICE IN THE OFFICE OF ADVOCACY OF THE SMALL BUSINESS ADMINISTRATION

Mr. KERRY (for himself, Mr. BOND, Mr. LIEBERMAN, Mr. BURNS, Mr. CLELAND, Mr. BENNETT, Ms. LANDRIEU, Ms. SNOWE, Mr. EDWARDS, Mr. CRAPO, Ms. CANTWELL, Mr. ALLEN, Mr. ENSIGN, Mr. WELLSTONE, Mr. HARKIN, Mr. LEVIN) submitted the following resolution; which was considered and agreed to:

S. RES. 216

Whereas a vibrant and growing small business sector is vital to creating jobs in a dynamic economy;

Whereas reducing unnecessary regulatory burdens on small business promotes economic growth;

Whereas the Office of Advocacy of the Small Business Administration has been a key factor in working to minimize burdens on small business;

Whereas Milton D. Stewart, the first Chief Counsel for Advocacy, provided dynamic leadership in making the Office of Advocacy the effective voice for small business that it is today; and

Whereas Milton D. Stewart will be celebrating his 80th birthday on March 5, 2002: Now, therefore, be it

Resolved, That the Senate—

(1) honors Milton D. Stewart for his many years of service to the small business community of the United States;

(2) thanks Mr. Stewart for his leadership in creating a strong and dynamic Office of Advocacy to help carry on that service in the future; and

(3) instructs the Secretary of the Senate to transmit an enrolled copy of this resolution to Milton D. Stewart.

AMENDMENTS SUBMITTED AND PROPOSED

SA 2979. Mr. MCCAIN (for himself, Mr. HOLLINGS, Mrs. MURRAY, Mr. BINGAMAN, Mr. BREAUX, Mr. SMITH of Oregon, Mr. DOMENICI, Mrs. HUTCHISON, and Mr. WYDEN) submitted an amendment intended to be proposed to amendment SA 2917 submitted by Mr. DASCHLE and intended to be proposed to the bill (S. 517) to authorize funding the Department of Energy to enhance its mission areas through technology transfer and partnerships for fiscal years 2002 through 2006, and for other purposes; which was ordered to lie on the table.

TEXT OF AMENDMENTS

SA 2979. Mr. MCCAIN (for himself, Mr. HOLLINGS, Mrs. MURRAY, Mr. BINGAMAN, Mr. BREAUX, Mr. SMITH of Oregon, Mr. DOMENICI, Mrs. HUTCHISON, and Mr. WYDEN) submitted an amendment intended to be proposed to amendment SA 2917 submitted by Mr. DASCHLE and intended to be proposed to the bill (S. 517) to authorize funding the Department of Energy to enhance its mission areas through technology transfer and partnerships for fiscal years 2002 through 2006, and for other purposes; which was ordered to lie on the table; as follows:

At the end of title VII, add the following:

Subtitle C—Pipeline Safety

PART 1—SHORT TITLE: AMENDMENT OF TITLE 49

Sec. 741. Short title: amendment of title 49, United States Code.

PART 2—PIPELINE SAFETY IMPROVEMENT ACT OF 2002

Sec. 761. Implementation of inspector general recommendations.
Sec. 762. NTSB safety recommendations.
Sec. 763. Qualifications of pipeline personnel.
Sec. 764. Pipeline integrity inspection program.
Sec. 765. Enforcement.
Sec. 766. Public education, emergency preparedness, and community right to know.
Sec. 767. Penalties.
Sec. 768. State oversight role.
Sec. 769. Improved data and data availability.
Sec. 770. Research and development.
Sec. 771. Pipeline integrity technical advisory committee.
Sec. 772. Authorization of appropriations.
Sec. 773. Operator assistance in investigations.
Sec. 774. Protection of employees providing pipeline safety information.
Sec. 775. State pipeline safety advisory committees.
Sec. 776. Fines and penalties.
Sec. 777. Study of rights-of-way.
Sec. 778. Study of natural gas reserve.
Sec. 779. Study and report on natural gas pipeline and storage facilities in New England.

PART 3—PIPELINE SECURITY SENSITIVE INFORMATION

Sec. 781. Meeting community right to know without security risks.
Sec. 782. Technical assistance for security of pipeline facilities.

PART 1—SHORT TITLE; AMENDMENT OF TITLE 49

SEC. 741. SHORT TITLE; AMENDMENT OF TITLE 49, UNITED STATES CODE.

(a) SHORT TITLE.—This subtitle may be cited as the ''Pipeline Safety Improvement Act of 2002''.

(b) AMENDMENT OF TITLE 49, UNITED STATES CODE.—Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or a repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of title 49, United State Code.

PART 2—PIPELINE SAFETY IMPROVEMENT ACT OF 2002

SEC. 761. IMPLEMENTATION OF INSPECTOR GENERAL RECOMMENDATIONS.

(a) IN GENERAL.—Except as otherwise required by this subtitle, the Secretary shall implement the safety improvement recommendations provided for in the Department of Transportation Inspector General's Report (RT–2000–069).

(b) REPORTS BY THE SECRETARY.—Not later than 90 days after the date of enactment of this Act, and every 90 days thereafter until each of the recommendations referred to in subsection (a) has been implemented, the Secretary shall transmit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on the specific actions taken to implement such recommendations.

(c) REPORTS BY THE INSPECTOR GENERAL.—The Inspector General shall periodically transmit to the Committees referred to in subsection (b) a report assessing the Secretary's progress in implementing the recommendations referred to in subsection (a) and identifying options for the Secretary to consider in accelerating recommendation implementation.

SEC. 762. NTSB SAFETY RECOMMENDATIONS.

(a) IN GENERAL.—The Secretary of Transportation, the Administrator of Research and Special Program Administration, and the Director of the Office of Pipeline Safety shall fully comply with section 1135 of title 49, United States Code, to ensure timely responsiveness to National Transportation Safety Board recommendations about pipeline safety.

(b) PUBLIC AVAILABILITY.—The Secretary, Administrator, or Director, respectively, shall make a copy of each recommendation on pipeline safety and response, as described in sections 1135(a) and (b) of title 49, United States Code, available to the public at reasonable cost.

(c) REPORTS TO CONGRESS.—The Secretary, Administrator, or Director, respectively, shall submit to the Congress by January 1 of each year a report containing each recommendation on pipeline safety made by the Board during the prior year and a copy of the response to each such recommendation.

SEC. 763. QUALIFICATIONS OF PIPELINE PERSONNEL

(a) QUALIFICATION PLAN.—Each pipeline operator shall make available to the Secretary of Transportation, or, in the case of an intrastate pipeline facility operator, the appropriate State regulatory agency, a plan that is designed to enhance the qualifications of pipeline personnel and to reduce the likelihood of accidents and injuries. The plan shall be made available not more than 6 months after the date of enactment of this Act, and the operator shall revise or update the plan as appropriate.

(b) REQUIREMENTS.—The enhanced qualification plan shall include, at a minimum, criteria to demonstrate the ability of an individual to safely and properly perform tasks identified under section 60102 of title 49, United States Code. The plan shall also provide for training and periodic reexamination of pipeline personnel qualifications and provide for requalification as appropriate. The Secretary, or, in the case of an intrastate pipeline facility operator, the appropriate State regulatory agency, may review and certify the plans to determine if they are sufficient to provide a safe operating environment and shall periodically review the plans to ensure the continuation of a safe operation. The Secretary may establish minimum standards for pipeline personnel training and evaluation, which may include written examination, oral examination, work performance history review, observation during performance on the job, on the job training, simulations, or other forms of assessment.

(c) REPORT TO CONGRESS.—

(1) IN GENERAL.—The Secretary shall submit a report to the Congress evaluating the effectiveness of operator qualification and training efforts, including—

(A) actions taken by inspectors;

(B) recommendations made by inspectors for changes to operator qualification and training programs; and

(C) industry and employee organization responses to those actions and recommendations.

(2) CRITERIA.—The Secretary may establish criteria for use in evaluating and reporting

on operator qualification and training for purposes of this subsection.

(3) DUE DATE.—The Secretary shall submit the report required by paragraph (1) to the Congress 3 years after the date of enactment of this Act.

SEC. 764. PIPELINE INTEGRITY INSPECTION PROGRAM.

Section 60109 is amended by adding at the end the following:

(c) INTEGRITY MANAGEMENT.—

(1) GENERAL REQUIREMENT.—The Secretary shall promulgate regulations requiring operators of hazardous liquid pipelines and natural gas transmission pipelines to evaluate the risks to the operator's pipeline facilities in areas identified pursuant to subsection (a)(1), and to adopt and implement a program for integrity management that reduces the risk of an incident in those areas. The regulations shall be issued no later than one year after the Secretary has issued standards pursuant to subsections (a) and (b) of this section or by December 31, 2003, whichever is sooner.

''(2) STANDARDS FOR PROGRAM.—In promulgating regulations under this section, the Secretary shall require an operator's integrity management plan to be based on risk analysis and each plan shall include, at a minimum—

''(A) periodic assessment of the integrity of the pipeline through methods including internal inspection, pressure testing, direct assessment, or other effective methods. The assessment period shall be no less than every 5 years unless the Department of Transportation Inspector General, after consultation with the Secretary determines there is not a sufficient capability or it is deemed unnecessary because of more technically appropriate monitoring or creates undue interruption of necessary supply to fulfill the requirements under this paragraph;

''(B) clearly defined criteria for evaluating the results of the periodic assessment methods carried out under subparagraph (A) and procedures to ensure identified problems are corrected in a timely manner; and

''(C) measures, as appropriate, that prevent and mitigate unintended releases, such as leak detection, integrity evaluation, restrictive flow devices, or other measures.

''(3) CRITERIA FOR PROGRAM STANDARDS.—In deciding how frequently the integrity assessment methods carried out under paragraph (2)(A) must be conducted, an operator shall take into account the potential for new defects developing or previously identified structural defects caused by construction or installation, the operational characteristics of the pipeline, and leak history. In addition, the Secretary may establish a minimum testing requirement for operators of pipelines to conduct internal inspections.

''(4) STATE ROLE.—A State authority that has an agreement in effect with the Secretary under section 60106 is authorized to review and assess an operator's risk analyses and integrity management plans required under this section for interstate pipelines located in that State. The reviewing State authority shall provide the Secretary with a written assessment of the plans, make recommendations, as appropriate, to address safety concerns not adequately addressed in the operator's plans, and submit documentation explaining the State-proposed plan revisions. The Secretary shall carefully consider the State's proposals and work in consultation with the States and operators to address safety concerns.

''(5) MONTIORING IMPLEMENTATION.—The Secretary of Transportation shall review the risk analysis and program for integrity management required under this section and provide for continued monitoring of such plans. Not later than 2 years after the implementation of integrity management plans under this section, the Secretary shall complete an assessment and evaluation of the effects on safety and the environment of extending all of the requirements mandated by the regulations described in paragraph (1) to additional areas. The Secretary shall submit the assessment and evaluation to Congress along with any recommendations to improve and expand the utilization of integrity management plans.

''(6) OPPORTUNITY FOR LOCAL INPUT ON INTEGRITY MANAGEMENT.—Within 18 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, the Secretary shall, by regulation, establish a process for raising and addressing local safety concerns about pipeline integrity and the operator's pipeline integrity plan. The process shall include—

''(A) a requirement that an operator of a hazardous liquid or natural gas transmission pipeline facility provide information about the risk analysis and integrity management plan required under this section to local officials in a State in which the facility is located;

''(B) a description of the local officials required to be informed, the information that is to be provided to them and the manner, which may include traditional or electronic means, in which it is provided;

''(C) the means for receiving input from the local officials that may include a public forum sponsored by the Secretary or by the State, or the submission of written comments through traditional or electronic means;

''(D) the extent to which an operator of a pipeline facility must participate in a public forum sponsored by the Secretary or in another means for receiving input from the local officials or in the evaluation of that input; and

''(E) the manner in which the Secretary will notify the local officials about how their concerns are being addressed.''.

SEC. 765. ENFORCEMENT.

(a) IN GENERAL.—Section 60112 is amended—

(1) by striking subsection (a) and inserting the following:

''(a) GENERAL AUTHORITY.—After notice and an opportunity for a hearing, the Secretary of Transportation may decide a pipeline facility is hazardous if the Secretary decides that—

''(1) operation of the facility is or would be hazardous to life, property, or the environment; or

''(2) the facility is, or would be, constructed or operated, or a component of the facility is, or would be, constructed or operated with equipment, material, or a technique that the Secretary decides is hazardous to life, property, or the environment.''; and

(2) by striking ''is hazardous,'' in subsection (d) and inserting ''is, or would be, hazardous,''.

SEC. 766. PUBLIC EDUCATION, EMERGENCY PREPAREDNESS, AND COMMUNITY RIGHT TO KNOW.

(a) Section 60116 is amended to read as follows:

''§ 60116. Public education, emergency preparedness, and community right to know

''(a) PUBLIC EDUCATION PROGRAMS.—

''(1) Each owner or operator of a gas or hazardous liquid pipeline facility shall carry out a continuing program to educate the public on the use of a one-call notification system prior to excavation and other damage prevention activities, the possible hazards associated with unintended releases from the pipeline facility, the physical indications that such a release may have occurred, what steps should be taken for public safety in the event of a pipeline release, and how to report such an event.

''(2) Within 12 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, each owner or operator of a gas or hazardous liquid pipeline facility shall review its existing public education program for effectiveness and modify the program as necessary. The completed program shall include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations. The completed program shall be submitted to the Secretary or, in the case of an intrastate pipeline facility operator, the appropriate State agency and shall be periodically reviewed by the Secretary or, in the case of an intrastate pipeline facility operator, the appropriate State agency.

''(3) The Secretary may issue standards prescribing the elements of an effective public education program. The Secretary may also develop material for use in the program.

''(b) EMERGENCY PREPAREDNESS.—

''(1) OPERATOR LIAISON.—Within 12 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, an operator of a gas transmission or hazardous liquid pipeline facility shall initiate and maintain liaison with the State emergency response commissions, and local emergency planning committees in the areas of pipeline right-of-way, established under section 301 of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11001) in each State in which it operates.

''(2) INFORMATION.—An operator shall, upon request, make available to the State emergency response commissions and local emergency planning committees, and shall make available to the Office of Pipeline Safety in a standardized form for the purpose of providing the information to the public, the information described in section 60102(d), the operator's program for integrity management, and information about implementation of that program. The information about the facility shall also include, at a minimum—

''(A) the business name, address, telephone number of the operator, including a 24-hour emergency contact number;

''(B) a description of the facility, including pipe diameter, the product or products carried, and the operating pressure;

''(C) with respect to transmission pipeline facilities, maps showing the location of the facility and, when available, any high consequence areas which the pipeline facility traverses or adjoins and abuts;

''(D) a summary description of the integrity measures the operator uses to assure safety and protection for the environment; and

''(E) a point of contact to respond to questions from emergency response representative.

''(3) SMALLER COMMUNITIES.—In a community without a local emergency planning committee, the operator shall maintain liaison with the local fire, police, and other emergency response agencies.

''(4) PUBLIC ACCESS.—The Secretary shall prescribe requirements for public access, as appropriate, to this information, including a requirement that the information be made available to the public by widely accessible computerized database.

''(c) COMMUNITY RIGHT TO KNOW.—Not later than 12 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, and annually thereafter, the owner or operator of each gas transmission or hazardous liquid pipeline facility shall provide to the governing body of each municipality in which the pipeline facility is located, a map identifying the location of such facility.

The map may be provided in electronic form. The Secretary may provide technical assistance to the pipeline industry on developing public safety and public education program content and best practices for program delivery, and on evaluating the effectiveness of the programs. The Secretary may also provide technical assistance to State and local officials in applying practices developed in these programs to their activities to promote pipeline safety.

''(d) PUBLIC AVAILABILITY OF REPORTS.—The Secretary shall—

''(1) make available to the public—

''(A) a safety-related condition report filed by an operator under section 60102(h);

''(B) a report of a pipeline incident filed by an operator;

''(C) the results of any inspection by the Office of Pipeline Safety or a State regulatory official; and

''(D) a description of any corrective action taken in response to a safety-related condition reported under subparagraph (A), (B), or (C); and

''(2) prescribe requirements for public access, as appropriate, to integrity management program information prepared under this chapter, including requirements that will ensure data accessibility to the greatest extent feasible.''

(b) SAFETY CONDITION REPORTS.—Section 60102(h)(2) is amended by striking ''authorities.'' and inserting ''officials, including the local emergency responders.''.

(c) CONFORMING AMENDMENT.—The chapter analysis for chapter 601 is amended by striking the item relating to section 60116 and inserting the following:

''60116. Public education, emergency preparedness, community right to know.''.

SEC. 767. PENALTIES.

(a) CIVIL PENALTIES.—Section 60122 is amended—

(1) by striking ''$25,000'' in subsection (a)(1) and inserting ''$500,000'';

(2) by striking ''$500,000'' in subsection (a)(1) and inserting ''$1,000,000'';

(3) by adding at the end of subsection (a)(1) the following: ''The preceding sentence does not apply to judicial enforcement action under section 60120 or 60121.''; and

(4) by striking subsection (b) and inserting the following:

''(b) PENALTY CONSIDERATIONS.—In determining the amount of a civil penalty under this section—

''(1) the Secretary shall consider—

''(A) the nature, circumstances, and gravity of the violation, including adverse impact on the environment;

''(B) with respect to the violator, the degree of culpability, any history of prior violations, the ability to pay, any effect on ability to continue doing business; and

''(C) good faith in attempting to comply; and

''(2) the Secretary may consider—

''(A) the economic benefit gained from the violation without any discount because of subsequent damages; and

''(B) other matters that justice requires.''.

(b) EXCAVATOR DAMAGE.—Section 60123(d) is amended—

(1) by striking ''knowingly and willfully'';

(2) by inserting ''knowingly and willfully'' before ''engages'' in paragraph (1); and

(3) striking paragraph (2)(B) and inserting the following:

''(B) a pipeline facility, is aware of damage, and does not report the damage promptly to the operator of the pipeline facility and to other appropriate authorities; or''.

(c) CIVIL ACTIONS.—Section 60120(a)(1) is amended to read as follows:

''(1) On the request of the Secretary of Transportation, the Attorney General may bring a civil action in an appropriate district court of the United States to enforce this chapter, including section 60112 of this chapter, or a regulation prescribed or order issued under this chapter. The court may award appropriate relief, including a temporary or permanent injunction, punitive damages, and assessment of civil penalties considering the same factors as prescribed for the Secretary in an administrative case under section 60122.''.

SEC. 768. STATE OVERSIGHT ROLE.

(a) STATE AGREEMENTS WITH CERTIFICATION.—Section 60106 is amended—

(1) by striking ''GENERAL AUTHORITY.—'' in subsection (a) and inserting ''AGREEMENTS WITHOUT CERTIFICATION.—'';

(2) by redesignating subsections (b), (c), and (d) as subsections (c), (d), and (e); and

(3) by inserting after subsection (a) the following:

''(b) AGREEMENTS WITH CERTIFICATION.—

''(1) IN GENERAL.—If the Secretary accepts a certification under section 60105 of this title and makes the determination required under this subsection, the Secretary may make an agreement with a State authority authorizing it to participate in the oversight of interstate pipeline transportation. Each such agreement shall include a plan for the State authority to participate in special investigations involving incidents or new construction and allow the State authority to participate in other activities overseeing interstate pipeline transportation or to assume additional inspection or investigatory duties. Nothing in this section modifies section 60104(c) or authorizes the Secretary to delegate the enforcement of safety standards prescribed under this chapter to a State authority.

''(2) DETERMINATION REQUIRED.—The Secretary may not enter into an agreement under this subsection, unless the Secretary determines that—

''(A) the agreement allowing participation of the State authority is consistent with the Secretary's program for inspection and consistent with the safety policies and provisions provided under this chapter;

''(B) the interstate participation agreement would not adversely affect the oversight responsibilities of intrastate pipeline transportation by the State authority;

''(C) the State is carrying out a program demonstrated to promote preparedness and risk prevention activities that enable communities to live safely with pipelines;

''(D) the State meets the minimum standards for State one-call notification set forth in chapter 61; and

''(E) the actions planned under the agreement would not impede interstate commerce or jeopardize public safety.

''(3) EXISTING AGREEMENTS.—If requested by the State Authority, the Secretary shall authorize a State Authority which had an interstate agreement in effect after January, 1999, to oversee interstate pipeline transportation pursuant to the terms of that agreement until the Secretary determines that the State meets the requirements of paragraph (2) and executes a new agreement, or until December 31, 2003, whichever is sooner. Nothing in this paragraph shall prevent the Secretary, after affording the State notice, hearing, and an opportunity to correct any alleged deficiencies, from terminating an agreement that was in effect before enactment of the Pipeline Safety Improvement Act of 2002 if—

''(A) the State Authority fails to comply with the terms of the agreement;

''(B) implementation of the agreement has resulted in a gap in the oversight responsibilities of intrastate pipeline transportation by the State Authority; or

''(C) continued participation by the State Authority in the oversight of interstate pipeline transportation has had an adverse impact on pipeline safety.''.

''(b) ENDING AGREEMENTS.—Subsection (e) of section 60106, as redesignated by subsection (a), is amended to read as follows:

''(e) ENDING AGREEMENTS.—

''(1) PERMISSIVE TERMINATION.—The Secretary may end an agreement under this section when the Secretary finds that the State authority has not complied with any provision of the agreement.

''(2) MANDATORY TERMINATION OF AGREEMENT.—The Secretary shall end an agreement for the oversight of interstate pipeline transportation if the Secretary finds that—

''(A) implementation of such agreement has resulted in a gap in the oversight responsibilities of intrastate pipeline transportation by the State authority;

''(B) the State actions under the agreement have failed to meet the requirements under subsection (b); or

''(C) continued participation by the State authority in the oversight of interstate pipeline transportation would not promote pipeline safety.

''(3) PROCEDURAL REQUIREMENTS.—The Secretary shall give the notice and an opportunity for a hearing to a State authority before ending an agreement under this section. The Secretary may provide a State an opportunity to correct any deficiencies before ending an agreement. The finding and decision to end the agreement shall be published in the Federal Register and may not become effective for at least 15 days after the date of publication unless the Secretary finds that continuation of an agreement poses an imminent hazard.''.

SEC. 769. IMPROVED DATA AND DATA AVAILABILITY.

(a) IN GENERAL.—Within 12 months after the date of enactment of this Act, the Secretary shall develop and implement a comprehensive plan for the collection and use of gas and hazardous liquid pipeline data to revise the causal categories on the incident report forms to eliminate overlapping and confusing categories and include subcategories. The plan shall include components to provide the capability to perform sound incident trend analysis and evaluations of pipeline operator performance using normalized accident data.

(b) REPORT OF RELEASES EXCEEDING 5 GALLONS.—Section 60117(b) is amended—

(1) by inserting ''(1)'' before ''To'';

(2) redesignating paragraphs (1) and (2) as subparagraphs (A) and (B);

(3) inserting before the last sentence the following:

''(2) A person owning or operating a hazardous liquid pipeline facility shall report to the Secretary each release to the environment greater than five gallons of the hazardous liquid or carbon dioxide transported. This section applies to releases from pipeline facilities regulated under this chapter. A report must include the location of the release, fatalities and personal injuries, type of product, amount of product release, cause or causes of the release, extent of damage to property and the environment, and the response undertaken to clean up the release.

''(3) During the course of an incident investigation, a person owning or operating a pipeline facility shall make records, reports, and information required under subsection (a) of this section or other reasonably described records, reports, and information relevant to the incident investigation, available to the Secretary within the time limits prescribed in a written request.''; and

(4) indenting the first word of the last sentence and inserting ''(4)'' before ''The Secretary'' in that sentence.

(c) PENALTY AUTHORITIES.—(1) Section 60122(a) is amended by striking ''60114(c)'' and inserting ''60117(b)(3)''.

(2) Section 60123(a) is amended by striking ''60114(c),'' and inserting ''60117(b)(3),''.

(d) ESTABLISHMENT OF NATIONAL DEPOSITORY.—Section 60117 is amended by adding at the end the following:

''(1) NATIONAL DEPOSITORY.—The Secretary shall establish a national depository of data on events and conditions, including spill histories and corrective actions for specific incidents, that can be used to evaluate the risk of, and to prevent pipeline failures and releases. The Secretary shall administer the program through the Bureau of Transportation Statistics, in cooperation with the Research and Special Programs Administration, and shall make such information available for use by State and local planning and emergency response authorities and the public.''.

SEC. 770. RESEARCH AND DEVELOPMENT.

(a) INNOVATIVE TECHNOLOGY DEVELOPMENT.

(1) IN GENERAL.—As part of the Department of Transportation's research and development program, the Secretary of Transportation shall direct research attention to the development of alternative technologies—

(A) to expand the capabilities of internal inspection devices to identify and accurately measure defects and anomalies;

(B) to inspect pipelines that cannot accommodate internal inspection devices available on the date of enactment;

(C) to develop innovative techniques measuring the structural integrity of pipelines;

(D) to improve the capability, reliability, and practicality of external leak detection devices; and

(E) to develop and improve alternative technologies to identify and monitor outside force damage to pipelines.

(2) COOPERATIVE.—The Secretary may participate in additional technological development through cooperative agreements with trade associations, academic institutions, or other qualified organizations.

(b) PIPELINE SAFETY AND RELIABILITY RESEARCH AND DEVELOPMENT.

(1) IN GENERAL.—The Secretary of Transportation, in coordination with the Secretary of Energy, shall develop and implement an accelerated cooperative program of research and development to ensure the integrity of natural gas and hazardous liquid pipelines. This research and development program—

(A) shall include materials inspection techniques, risk assessment methodology, and information systems surety; and

(B) shall complement, and not replace, the research program of the Department of Energy addressing natural gas pipeline issues existing on the date of enactment of this Act.

(2) PURPOSE.—The purpose of the cooperative research program shall be to promote pipeline safety research and development to—

(A) ensure long-term safety, reliability and service life for existing pipelines;

(B) expand capabilities of internal inspection devices to identify and accurately measure defects and anomalies;

(C) develop inspection techniques for pipelines that cannot accommodate the internal inspection devices available on the date of enactment;

(D) develop innovative techniques to measure the structural integrity of pipelines to prevent pipeline failures;

(E) develop improved materials and coatings for use in pipelines;

(F) improve the capability, reliability, and practicality of external leak detection devices;

(G) identify underground environments that might lead to shortened service life;

(H) enhance safety in pipeline siting and land use;

(I) minimize the environmental impact of pipelines;

(J) demonstrate technologies that improve pipeline safety, reliability, and integrity;

(K) provide risk assessment tools for optimizing risk mitigation strategies; and

(L) provide highly secure information systems for controlling the operation of pipelines.

(3) AREAS.—In carrying out this subsection, the Secretary of Transportation, in coordination with the Secretary of Energy, shall consider research and development on natural gas, crude oil and petroleum product pipelines for—

(A) early crack, defect, and damage detection, including real-time damage monitoring;

(B) automated internal pipeline inspection sensor systems;

(C) land use guidance and set back management along pipeline rights-of-way for communities;

(D) internal corrosion control;

(E) corrosion-resistant coatings;

(F) improve cathodic protection;

(G) inspection techniques where internal inspection is not feasible, including measurement of structural integrity;

(H) external leak detection, including portable real-time video imaging technology, and the advancement of computerized control center leak detection systems utilizing real-time remote field data input;

(I) longer life, high strength, non-corrosive pipeline materials;

(J) assessing the remaining strength of existing pipes;

(K) risk and reliability analysis models, to be used to identify safety improvements that could be realized in the near term resulting from analysis of data obtained from a pipeline performance tracking initiative;

(L) identification, monitoring, and prevention of outside force damage, including satellite surveillance; and

(M) any other areas necessary to ensuring the public safety and protecting the environment.

(4) POINTS OF CONTACT.—

(A) IN GENERAL.—To coordinate and implement the research and development programs and activities authorized under this subsection—

(i) the Secretary of Transportation shall designate, as the point of contact for the Department of Transportation, an officer of the Department of Transportation who has been appointed by the President and confirmed by the Senate; and

(ii) the Secretary of Energy shall designate, as the point of contact for the Department of Energy, an officer of the Department of Energy who has been appointed by the President and confirmed by the Senate.

(B) DUTIES.—

(i) The point of contact for the Department of Transportation shall have the primary responsibility for coordinating and overseeing the implementation of the research, development, and demonstration program plan under paragraphs (5) and (6).

(ii) The points of contact shall jointly assist in arranging cooperative agreements for research, development and demonstration involving their respective Departments, national laboratories, universities, and industry research organizations.

(5) RESEARCH AND DEVELOPMENT PROGRAM PLAN.—Within 240 days after the date of enactment of this Act, the Secretary of Transportation, in coordination with the Secretary of Energy and the Pipeline Integrity Technical Advisory Committee, shall prepare and submit to the Congress a 5-year program plan to guide activities under this subsection. In preparing the program plan, the Secretary shall consult with appropriate representatives of the natural gas, crude oil, and petroleum product pipeline industries to select and priortize appropriate project proposals. The Secretary may also seek the advice of utilities, manufacturers, institutions of higher learning, Federal agencies, the pipeline research institutions, national laboratories, State pipeline safety officials, environmental organizations, pipeline safety advocates, and professional and technical societies.

(6) IMPLEMENTATION.—The Secretary of Transportation shall have primary responsibility for ensuring the 5-year plan provided for in paragraph (5) is implemented as intended. In carrying out the research, development, and demonstration activities under this paragraph, the Secretary of Transportation and the Secretary of Energy may use, to the extent authorized under applicable provisions of law, contracts, cooperative agreements, cooperative research and development agreements under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.), grants, joint ventures, other transactions, and any other form of agreement available to the Secretary consistent with the recommendations of the Advisory Committee.

(7) REPORTS TO CONGRESS.—The Secretary of Transportation shall report to the Congress annually as to the status and results to date of the implementation of the research and development program plan. The report shall include the activities of the Department of Transportation and Energy, the national laboratories, universities, and any other research organizations, including industry research organizations.

SEC. 771. PIPELINE INTEGRITY TECHNICAL ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—The Secretary of Transportation shall enter into appropriate arrangements with the National Academy of Sciences to establish and manage the Pipeline Integrity Technical Committee for the purpose of advising the Secretary of Transportation and the Secretary of Energy on the development and implementation of the 5-year research, development, and demonstration program plan under section 770(b)(5). The Advisory Committee shall have an ongoing role in evaluating the progress and results of the research, development, and demonstration carried out under that section.

(b) MEMBERSHIP.—The National Academy of Sciences shall appoint the members of the Pipeline Integrity Technical Advisory Committee after consultation with the Secretary of Transportation and the Secretary of Energy. Members appointed to the Advisory Committee should have the necessary qualifications to provide technical contributions to the purposes of the Advisory Committee.

SEC. 772. AUTHORIZATION OF APPROPRIATIONS.

(a) GAS AND HAZARDOUS LIQUIDS.—Section 60125(a) is amended to read as follows:

''(a) GAS AND HAZARDOUS LIQUID.—To carry out this chapter and other pipeline-related damage prevention activities of this title (except for section 60107), there are authorized to be appropriated to the Department of Transportation—$30,000,000 for each of the fiscal years 2003, 2004, and 2005 of which $23,000,000 is to be derived from user fees for fiscal years 2003, 2004, and 2005 collected under section 60301 of this title.''.

(b) GRANTS TO STATES.—Section 60125(c) is amended to read as follows:

''(c) STATE GRANTS.—Not more than the following amounts may be appropriated to the Secretary to carry out section 60107—$20,000,000 for the fiscal years 2003, 2004, and

2005 of which $18,000,000 is to be derived from user fees for fiscal years 2003, 2004, and 2005 collected under section 60301 of this title.''.

(c) OIL SPILLS.—Section 60125 is amended by redesignating subsections (d), (e), and (f) as subsections (e), (f), (g) and inserting after subsection (c) the following:

''(d) OIL SPILL LIABILITY TRUST FUND.—Of the amounts available in the Oil Spill Liability Trust Fund, $8,000,000 shall be transferred to the Secretary of Transportation, as provided in appropriation Acts, to carry out programs authorized in this title for each of fiscal years 2003, 2004, and 2005.''.

(d) PIPELINE INTEGRITY PROGRAM.—(1) There are authorized to be appropriated to the Secretary of Transportation for carrying out sections 770(b) and 771 of this subtitle $3,000,000, to be derived from user fees under section 60301 of title 49, United States Code, for each of the fiscal years 2003 through 2007.

(2) Of the amounts available in the Oil Spill Liability Trust Fund established by section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509), $3,000,000 shall be transferred to the Secretary of Transportation, as provided in appropriation Acts, to carry out programs for detection, prevention and mitigation of oil spills under sections 770(b) and 771 of this subtitle for each of the fiscal years 2003 through 2007.

(3) There are authorized to be appropriated to the Secretary of Energy for carrying out sections 770(b) and 771 of this subtitle such sums as may be necessary for each of the fiscal years 2003 through 2007.

SEC. 773. OPERATOR ASSISTANCE IN INVESTIGATIONS.

(a) IN GENERAL.—If the Department of Transportation or the National Transportation Safety Board investigate an accident, the operator involved shall make available to the representative of the Department or the Board all records and information that in any way pertain to the accident (including integrity management plans and test results), and shall afford all reasonable assistance in the investigation of the accident.

(b) CORRECTIVE ACTION ORDERS.—Section 60112(d) is amended—

(1) by inserting ''(1)'' after ''CORRECTIVE ACTION ORDERS.—''; and

(2) by adding at the end of the following:

''(2) If, in the case of a corrective action order issued following an accident, the Secretary determines that the actions of an employee carrying out an activity regulated under this chapter, including duties under section 60102(a), may have contributed substantially to the cause of the accident, the Secretary shall direct the operator to relieve the employee from performing those activities, reassign the employee, or place the employee on leave until the earlier of the date on which—

''(A) the Secretary determines, after notice and an opportunity for a hearing, that the employee's performance of duty in carrying out the activity did not contribute substantially to the cause of the accident; or

''(B) the Secretary determines the employees has been re-qualified or re-trained as provided for in section 763 of the Pipeline Safety Improvement Act of 2002 and can safety perform those activities.

''(3) Action taken by an operator under paragraph (2) shall be in accordance with the terms and conditions of any applicable collective bargaining agreement to the extent it is not inconsistent with the requirements of this section.''.

SEC. 774. PROTECTION OF EMPLOYEES PROVIDING PIPELINE SAFETY INFORMATION.

(a) IN GENERAL.—Chapter 601 is amended by adding at the end the following:

''§ 60129. Protection of employees providing pipeline safety information

''(a) DISCRIMINATION AGAINST PIPELINE EMPLOYEES.—No pipeline operator or contractor or subcontractor of a pipeline may discharge an employee or otherwise discriminate against an employee with respect to compensation, terms, conditions, or privileges or employment because the employee (or any person acting pursuant to a request of the employee)—

''(1) provided, caused to be provided, or is about to provide (with any knowledge of the employer) or cause to be provided to the employer or Federal Government information relating to any violation or alleged violation of any older, regulation, or standard of the Research and Special Programs Administration or any other provision of Federal law relating to pipeline safety under this chapter or any other law of the United States;

''(2) has filed, caused to be filed, or is about to file (with any knowledge of the employer) or cause to be filed a proceeding relating to any violation or alleged violation of any order, regulation, or standard of the Administration or any other provision of Federal law relating to pipeline safety under this chapter or any other law of the United States;

''(3) testified or is about to testify in such a proceeding; or

''(4) assisted or participated or is about to assist or participate in such a proceeding.

''(b) DEPARTMENT OF LABOR COMPLAINT PROCEDURE.—

''(1) FILING AND NOTIFICATION.—A person who believes that he or she has been discharged or otherwise discriminated against by any person in violation of subsection (a) may, not later than 90 days after the date on which such violation occurs, file (or have any person file on his or her behalf) a complaint with the Secretary of Labor alleging such discharge or discrimination. Upon receipt of such a complaint, the Secretary of Labor shall notify, in writing, the person named in the complaint and the Administrator of the Research and Special Programs Administration of the filing of the complaint, of the allegations contained in the complaint, of the substance of evidence supporting the complaint, and of the opportunities that will be afforded to such person under paragraph (2).

''(2) INVESTIGATION; PRELIMINARY ORDER.—

''(A) IN GENERAL.—Not later than 60 days after the date of receipt of a complaint filed under paragraph (1) and after affording the person named in the complaint an opportunity to submit to the Secretary of Labor a written response to the complaint and an opportunity to meet with a representative of the Secretary to present statements from witnesses, the Secretary of Labor shall conduct an investigation and determine whether there is reasonable cause to believe that the complaint has merit and notify in writing the complainant and the person alleged to have committed a violation of subsection (a) of the Secretary's findings. If the Secretary of Labor concludes that there is reasonable cause to believe that a violation of subsection (a) has occurred, the Secretary shall accompany the Secretary's findings with a preliminary order providing the relief prescribed by paragraph (3)(B). Not later than 30 days after the date of notification of findings under this paragraph, either the person alleged to have committed the violation or the complainant may file objections to the findings or preliminary order, or both, and request a hearing on the record. The filing of such objections shall not operate to stay any reinstatement remedy contained in the preliminary order. Such hearings shall be conducted expeditiously. If a hearing is not requested in such 30-day period, the preliminary order shall be deemed a final order that is not subject to judicial review.

''(B) REQUIREMENTS.—

''(i) REQUIRED SHOWING BY COMPLAINANT.—The Secretary of labor shall dismiss a complaint filed under this subsection and shall not conduct an investigation otherwise required under subparagraph (A) unless the complainant makes a prima facie showing that any behavior described in paragraphs (1) through (4) of subsection (a) was a contributing factor in the unfavorable personnel action alleged in the complaint.

''(ii) SHOWING BY EMPLOYER.—Notwithstanding a finding by the Secretary that the complainant has made the showing required under clause (i), no investigation otherwise required under subparagraph (A) shall be conducted if the employer demonstrates, by clear and convincing evidence, that the employer would have taken the same unfavorable personnel action in the absence of that behavior.

''(iii) CRITERIA FOR DETERMINATION BY SECRETARY.—The Secretary may determine that a violation of subsection (a) has occurred only if the complainant demonstrates that any behavior described in paragraphs (1) through (4) of subsection (a) was a contributing factor in the unfavorable personnel action alleged in the complaint.

''(iv) PROHIBITION.—Relief may not be ordered under subparagraph (A) if the employer demonstrates by clear and convincing evidence that the employer would have taken the same unfavorable personnel action in the absence of that behavior.

''(3) FINAL ORDER.—

''(A) DEADLINE FOR ISSUANCE; SETTLEMENT AGREEMENTS.—Not later than 120 days after the date of conclusion of a hearing under paragraph (2), the Secretary of Labor shall issue a final order providing the relief prescribed by this paragraph or denying the complaint. At any time before issuance of a final order, a proceeding under this subsection may be terminated on the basis of a settlement agreement entered into the Secretary of Labor, the complainant, and the person alleged to have committed the violation.

''(B) REMEDY.—If, in response to a complaint filed under paragraph (1), the Secretary of Labor determines that a violation of subsection (a) has occurred, the Secretary of Labor shall order the person who committed such violation to—

''(i) take affirmative action to abate the violation;

''(ii) reinstate the complainant to his or her former position together with the compensation (including back pay) and restore the terms, conditions, and privileges associated with his or her employment; and

''(iii) provide compensatory damages to the complainant.

If such an order is issued under this paragraph, the Secretary of Labor, at the request of the complainant, shall assess against the person whom the order is issued a sum equal to the aggregate amount of all costs and expenses (including attorney's and expert witness fees) reasonably incurred, as determined by the Secretary of Labor, by the complainant for, or in connection with, the bringing the complaint upon which the order was issued.

''(C) FRIVOLOUS COMPLAINTS.—If the Secretary of Labor finds that a complaint under paragraph (1) is frivolous or has been brought in bad faith, the Secretary of Labor may award to the prevailing employer a reasonably attorney's fee not exceeding $1,000.

''(4) REVIEW.—

''(A) APPEAL TO COURT OF APPEALS. Any person adversely affected or aggrieved by an order issued under paragraph (3) may obtain review of the order in the United States Court of Appeals for the circuit in which the violation, with respect to which the order was issued, allegedly occurred or the circuit in which the complainant resided on the date

of such violation, The petition for review must be filed not later than 60 days after the date of issuance of the final order of the Secretary of Labor. Review shall conform to chapter 7 of title 5, United States Code. The commencement of proceedings under this subparagraph shall not, unless ordered by the court, operate as a stay of the order.

''(B) LIMITATION ON COLLATERAL ATTACK.—An order of the Secretary of Labor with respect to which review could have been obtained under subparagraph (A) shall not be subject to judicial review in any criminal or other civil proceeding.

''(5) ENFORCEMENT OF ORDER BY SECRETARY OF LABOR.—Whenever any person has failed to comply with an order issued under paragraph (3), the Secretary of Labor may file a civil action in the United States district court for the district in which the violation was found to occur to enforce such order. In actions brought under this paragraph, the district courts shall have jurisdiction to grant all appropriate relief, including, but not to be limited to, injunctive relief and compensatory damages.

''(6) ENFORCEMENCE OF ORDER BY PARTIES.—

''(A) COMMENCEMNT OF ACTION.—A person on whose behalf an order-was issued under paragraph (3) may commence a civil action against the person to whom such order was issued to require compliance with such order. The appropriate United States district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such order.

''(B) ATTORNEY FEES.—The court, in issuing any final order under this paragraph, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such award costs is appropriate.

''(c) MANADAMUS.—any nondiscretionary duty impose by this section shall be enforceable in a mandamus proceeding brought under section 1361 of title 28, United States Code.

''(d) NONAPPLICABILITY TO DELIBERATE VIOLATION.—Subsection (a) shall not apply with respect to an employee of a pipeline, contractor or subcontractor who, acting without direction from the pipeline contractor or subcontractor (or such person's agent), deliberately causes a violation of any requirement relating to pipeline safety under this chapter or any other law of the United States.

''(e) CONTRACTOR DEFINED.—In this section, the term 'contractor' means a company that performs safety-sensitive functions by contract for a pipeline.''.

(b) CIVIL PENALTY.—Section 60122(a) is amended by adding at the end the following:

''(3) A person violating section 60129, or an order issued thereunder, is liable to the Government for a civil penalty of not more than $1,000 for each violation. The penalties provided by paragraph (1) do not apply to a violation of section 60129 or an order issued thereunder.''.

(c) CONFORMING AMENDMENT.—The chapter analysis for chapter 601 is amended by adding at the end the following:

''60129. Protection of employees providing pipeline safety information.''.

SEC. 775. STATE PIPELINE SAFETY ADVISORY COMMITTEES.

Within 90 days after receiving recommendations for improvements to pipeline safety from an advisory committee appointed by the Governor of any State, the Secretary of Transportation shall respond in writing to the committee setting forth what action, if any, the Secretary will take on those recommendations and the Secretary's reasons for acting or not acting upon any of the recommendations.

SEC. 776. FINES AND PENALTIES.

The Inspector General of the Department of Transportation shall conduct an analysis of the Department's assessment of fines and penalties on gas transmission and hazardous liquid pipelines, including the cost of corrective actions required by the Department in lieu of fines, and, no later than 6 months after the date of enactment of this Act, shall provide a report to the Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure on any findings and recommendations for actions by the Secretary or Congress to ensure the fines assessed are an effective deterrent for reducing safety risks.

SEC. 777. STUDY OF RIGHTS-OF-WAY.

The Secretary of Transportation is authorized to conduct a study on how best to preserve environmental resources in conjunction with maintaining pipeline rights-of-way. The study shall recognize pipeline operators' regulatory obligations to maintain rights-of-way and to protect public safety.

SEC. 778. STUDY OF NATURAL GAS RESERVE.

(a) FINDINGS.—Congress finds that:

(1) In the last few months, natural gas prices across the country have tripled.

(2) In California, natural gas prices have increased twenty-fold, from $3 per million British thermal units to nearly $60 per million British thermal units.

(3) One of the major causes of these price increases is a lack of supply, including a lack of natural gas reserves.

(4) The lack of a reserve was compounded by the rupture of an El Paso Natural Gas Company pipeline in Carlsbad, New Mexico on August 1, 2000.

(5) Improving pipeline safety will help prevent similar accidents that interrupt the supply of natural gas and will help save lives.

(6) It is also necessary to find solutions for the lack of natural gas reserves that could be used during emergencies.

(b) STUDY BY THE NATIONAL ACADEMY OF SCIENCES.—The Secretary of Energy shall request the National Academy of Sciences to—

(1) conduct a study to—

(A) determine the causes of recent increases in the price of natural gas, including whether the increases have been caused by problems with the supply of natural gas or by problems with the natural gas transmission system;

(B) identify any Federal or State policies that may have contributed to the price increases; and

(C) determine what Federal action would be necessary to improve the reserve supply of natural gas for use in situations of natural gas shortages and price increases, including determining the feasibility and advisability of a Federal strategic natural gas reserve system; and

(2) not later than 60 days after the date of enactment of this Act, submit to Congress a report on the results of the study.

SEC. 779. STUDY AND REPORT ON NATURAL GAS PIPELINE AND STORAGE FACILITIES IN NEW ENGLAND.

(a) STUDY.—The Federal Energy Regulatory Commission, in consultation with the Department of Energy, shall conduct a study on the natural gas pipeline transmission network in New England and natural gas storage facilities associated with that network. In carrying out the study, the Commission shall consider—

(1) the ability of natural gas pipeline and storage facilities in New England to meet current and projected demand by gas-fired power generation plants and other consumers;

(2) capacity constraints during unusual weather periods;

(3) potential constraint points in regional, interstate, and international pipeline capacity serving New England; and

(4) the quality and efficiency of the Federal environmental review and permitting process for natural gas pipelines.

(b) REPORT.—Not later than 120 days after the date of the enactment of this Act, the Federal Energy Regulatory Commission shall prepare and submit to the Senate Committee on Energy and Natural Resources and the appropriate committee of the House of Representatives a report containing the results of the study conducted under subsection (a), including recommendations for addressing potential natural gas transmission and storage capacity problems in New England.

PART 3—PIPELINE SECURITY SENSITIVE INFORMATION

SEC. 781. MEETING COMMUNITY RIGHT TO KNOW WITHOUT SECURITY RISKS.

Section 60117 is amended by adding at the end the following:

''(1) WITHHOLDING CERTAIN INFORMATION.—

''(1) IN GENERAL.—Notwithstanding any other provision of this chapter requiring the Secretary to provide information obtained by the Secretary or an officer, employee, or agent in carrying out this chapter to State or local government officials, the public or any other person, the Secretary shall withhold such information if it is information that is described in section 552(b)(1)(A) of title 5, United States Code.

''(2) CONDITIONAL RELEASE.—Notwithstanding paragraph (1), upon, the receipt of assurances satisfactory to the Secretary that the information will be handled appropriately, the Secretary may provide information permitted to be withheld under that paragraph—

''(A) to the owner or operator of the affected pipeline system;

''(B) to an officer, employee or agent of a Federal, State, Tribal, or local government, including a volunteer fire department, concerned with carrying out this chapter, with protecting the facilities, with protecting public safety, or with national security issues.

''(C) in an administrative or judicial proceeding brought under this chapter or an administrative or judicial proceeding that addresses terrorist actions or threats of such actions; or

''(D) to such other persons as the Secretary determines necessary to protect public safety and security.

''(3) REPORT TO CONGRESS.—The Secretary shall provide an annual report to the Congress, in appropriate form as determined by the Secretary, containing a summary of determinations made by the Secretary during the preceding year to withhold information from release under paragraph (1).''.

SEC. 782. TECHNICAL ASSISTANCE FOR SECURITY OF PIPELINE FACILITIES.

The Secretary of Transportation may provide technical assistance to an operator of a pipeline facility or to State, Tribal, or local officials to prevent or respond to acts of terrorism that may impact the pipeline facility, including—

(1) actions by the Secretary that support the use of National Guard or State or Federal personnel to provide additional security for a pipeline facility at risk of terrorist attack or in response to such an attack;

(2) use of resources available to the Secretary to develop and implement security measures for a pipeline facility;

(3) identification of security issues with respect to the operation of a pipeline facility; and

(4) the provision of information and guidance on security practices that prevent damage to pipeline facilities from terrorist attacks.

Strike section 1262.

NOTICES OF HEARINGS/MEETINGS

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY

Mr. HARKIN. Mr. President, I would like to announce that the Committee on Agriculture, Nutrition, and Forestry will conduct a nomination hearing on March 6, 2002, in SD–106 at 9:30 a.m. The purpose of this hearing will be to consider the following nominations: Thomas Dorr the nominee for Under Secretary of Rural Development; Nancy Bryson, the administrations nominee to serve as general counsel for USDA; and Grace Daniel and Fred Dailey who are nominated to serve on the board of the Federal Agricultural Mortgage Corporation.

AUTHORITY FOR COMMITTEES TO MEET

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

Mr. REID. Mr. President, I ask unanimous consent that the Committee on Banking, Housing, and Urban Affairs be authorized to meet during the session of the Senate on Tuesday, March 5, 2002, at 10 a.m., to conduct an oversight hearing on ''Accounting and Investor Protection Issues Raised by Enron and Other Public Companies.''

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON GOVERNMENTAL AFFAIRS

Mr. REID. Mr. President, I ask unanimous consent that the Committee on Governmental Affairs be authorized to meet on Tuesday, March 5, 2002, at 2:30 p.m. to hold a hearing to consider the nomination of Jeanette J. Clark to be an Associate Judge of the Superior Court of the District of Columbia.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

Mr. REID. Mr. President, I ask unanimous consent that the Committee on Health, Education, Labor, and Pensions be authorized to meet for a hearing on ''The Dangers of Cloning and the Promise of Regenerative Medicine,'' during the session of the Senate on Tuesday, March 5, 2002, at 2:30 p.m.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON INDIAN AFFAIRS

Mr. REID. Mr. President, I ask unanimous consent that the Committee on Indian Affairs be authorized to meet on Tuesday, March 5, 2002, at 10 a.m., in room 485 of the Russell Senate Office Building to conduct an oversight hearing on the President's budget request for Indian programs for fiscal year 2003.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON THE JUDICIARY

Mr. REID. Mr. President, I ask unanimous consent that the Committee on the Judiciary be authorized to meet to conduct a nominations hearing on Tuesday, March 5, 2002, in Dirksen room 226.

Witness List

Panel I: The Honorable Orrin G. Hatch; the Honorable John Warner; the Honorable Carl Levin; the Honorable Robert Bennett; the Honorable Debbie Stabenow; the Honorable George Allen; and the Honorable Sander Levin.

Panel II: Mary Ann Solberg to be Deputy Director of the Office of National Drug Control Policy; Barry Crane to be Deputy Director for Supply Reduction, Office of National Drug Control Policy; Scott Burns to be Deputy Director for State and Local Affairs, Office of National Drug Control Policy; and John Robert Flores to be the Administrator of the Office of Juvenile Justice and Delinquency Prevention, Department of Justice.

The PRESIDING OFFICER. Without objection, it is so ordered.

SUBCOMMITTEE ON SEAPOWER

Mr. REID. Mr. President, I ask unanimous consent that the Subcommittee on Seapower of the Committee on Armed Services be authorized to meet during the session of the Senate on Tuesday, March 5, 2002, at 2:30 p.m. in open session to receive testimony on Marine Corps modernization programs in review of the Defense Authorization request for fiscal year 2003.

The PRESIDING OFFICER. Without objection, it is so ordered.

SUBCOMMITTEE ON SEAPOWER

Mr. REID. Mr. President, I ask unanimous consent that the Subcommittee on Seapower of the Committee on Armed Services be authorized to meet during the session of the Senate on Tuesday, March 5, 2002, at 3:30 p.m., in open session to receive testimony on Marine Corps modernization programs in review of the Defense authorization request for fiscal year 2003.

The PRESIDING OFFICER. Without objection, it is so ordered.

PRIVILEGES OF THE FLOOR

Mr. REID. Mr. President, I ask unanimous consent that Peter Winokur, a congressional fellow on my staff, be granted floor privileges during the consideration of S. 517, the Energy Policy Act of 2002.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

Mr. BINGAMAN. Mr. President, I ask unanimous consent that Dr. Jonathan Epstein and Mr. John Kotek, who are legislative fellows in my office, be given floor privileges during the pendency of S. 517, and also that the following Finance Committee legislative fellows be afforded floor privileges during the pendency of this bill: Charles McFadden, Jill Shore Auburn, Elmer Ransom, Julius Shapiro, Dana Costerlin, Jonathan Seibald, and Charles Doneter.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that privileges of the floor be granted to the following members of my staff: Bryan Hannegan, Colleen Deegan, Christine Drager, Dan Kish, Mike Menge, Howard Useem, Dave Woodruff, Macy Bell, Shane Perkins, Jared Stubbs, Julia Gray, Kristin Phillips, Joe Brenckle, and Joshua Bowlen. I think that will suffice. I guess that about covers everybody.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

Mr. CARPER. Mr. President, I ask unanimous consent floor privileges be granted to Commerce Committee fellows Charisse Carney-Nunes and Peter Fippinger for the duration of the debate on the energy bill, S. 517.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DOMENICI. Mr. President, I ask unanimous consent the privilege of the floor be granted to Peter Lyons, a fellow in our office, during debate on the bill.

The PRESIDING OFFICER. Without objection, it is so ordered.

EXECUTIVE SESSION

NOMINATIONS DISCHARGED

Mr. REID. Mr. President, I ask unanimous consent that the Senate proceed to executive session and the HELP Committee be discharged from further consideration of the following nominations: Don Cogman to be a member of National Council on the Arts; Katharine DeWitt to be a member of the National Council on the Arts; Teresa Long be a member of the National Council on the Arts; that the nominations be confirmed, the motions to reconsider be laid on the table, any statements thereon be printed in the RECORD, the President be immediately notified of the Senate's action, and the Senate return to legislative session.

The PRESIDING OFFICER. Without objection, it is so ordered.

The nominations were considered and confirmed, as follows:

NATIONAL COUNCIL ON THE ARTS

Don V. Cogman, of Connecticut, to be a Member of the National Council on the Arts for a term expiring September 3, 2006.

Katharine DeWitt, of Ohio, to be a Member of the National Council on the Arts for a term expiring September 3, 2006.

Teresa Lozano Long, of Texas, to be a Member of the National Council on the Arts for a term expiring September 3, 2006.

LEGISLATIVE SESSION

The PRESIDING OFFICER (Mrs. CARNAHAN). Under the previous order, the Senate will return to legislative session.

HONORING MILTON D. STEWART

Mr. REID. Madam President, I ask unanimous consent that the Senate

proceed to the consideration of S. Res. 216 submitted earlier today by Senators KERRY and BOND.

The PRESIDING OFFICER. The clerk will report the resolution by title.

The assistant legislative clerk read as follows:

A resolution (S. Res. 216) to honor Milton D. Stewart for his years of service in the Office of Advocacy of the Small Business Administration.

There being no objection, the Senate proceeded to consider the resolution.

Mr. KERRY. Madam President, I speak in support of a sense of the Senate Resolution honoring the work and dedication of Milton D. Stewart, the first Chief Counsel for the Office of Advocacy at the U.S. Small Business Administration. Today, March 5, 2002 Milt turns 80 years-old and it is only fitting that we pass this Resolution in honor of his commitment to America's small businesses. I am pleased to say that this bi-partisan Resolution has been sponsored by myself and Ranking Member Bond, along with a great majority of the members of the Senate Committee on Small Business and Entrepreneurship. I am also pleased that this Resolution has been cleared for passage and I thank the floor staff for their quick work in facilitating passage of this Resolution.

One of the most highly successful innovations of the House and Senate Small Business Committees came twenty-six years ago with the creation of the Office of Advocacy within the Small Business Administration. This Office was established to represent and advance small business interests before other Federal agencies and even with Congress. Congress recognized the importance of small business to the competitiveness of the American economy and understood that government sometimes can get in the way of small businesses doing what they do best—creating jobs.

Advocacy has done a commendable job looking out for the interests of small business. It is, ironically, a government agency that has the task of making sure that other government agencies take into account the special problems and needs of small businesses as those agencies go about their rulemaking activities. Over the years, Advocacy has had a great deal of success and its hand has been strengthened by further Congressional action, such as the Regulatory Flexibility Act in 1980 and the Small Business Regulatory Enforcement Fairness Act in 1996.

This success is due in no small part to the solid beginnings of the Office of Advocacy under the leadership of the very first Chief Counsel for Advocacy, Milton D. Stewart. Milt, in his tenure as Chief Counsel, laid the groundwork for the Regulatory Flexibility Act, the first White House Conference on Small Business, the Small Business Innovation Development Act, and many other programs that are now considered part of the core small business policy within this country.

He came by his small business roots honestly. He spent his youth in a family-owned small business begun and managed by his father and mother. Early on, he acquired great respect for the skill and courage of small business entrepreneurs. Later in his life, Milt served at one time or another as President of the National Association of Small Business Investment Companies, President of the National Small Business Association, and as President of the Small Business High Technology Institute.

Milt also had significant government service beginning with the Office of War Information during World War II. He was even a staff member of the original Senate Committee on Small Business. He served as special counsel to Governor Harriman of New York and to the New York State Thruway Authority. All of this preceded his tenure as the first Chief Counsel for Advocacy.

While he was Chief Counsel, his charisma and vision inspired many of those who worked with him to catch the ''small business bug'' and to direct their energies toward helping develop sound small business policy for our Nation. They, and we, owe Milt a deep debt of gratitude.

The Office of Advocacy is fortunate to have had such a sound beginning. Those of us who care deeply for small business policy recognized how crucial Advocacy has become to sound regulatory debate within our country. The Office is a sterling example of an experiment that worked and continues to work to this day.

Milt, who deserves all the best on his birthday, can certainly take pride in the legacy that he has left by setting all the precedents that made the Office of Advocacy what it is today—an effective voice promoting the best interests of small business within our government.

Mr. REID. Madam President, I ask unanimous consent the resolution and preamble be agreed to en bloc, the motion to reconsider be laid on the table, and any statements relating to the resolution be printed in the RECORD.

The PRESIDING OFFICER. Without objection, it is so ordered.

The resolution (S. Res. 216) was agreed to.

The preamble was agreed to.

(The resolution, with its preamble, is printed in today's RECORD under ''Submitted Resolutions.'')

ORDERS FOR WEDNESDAY, MARCH 6, 2002

Mr. REID. Madam President, I note the presence of the Senator from Ohio. I will make sure the Senator from Ohio, in this unanimous consent agreement, is allowed to speak in relation to S. 517. It is my understanding the Senator from Ohio wishes to make an opening statement on this most important bill.

I ask unanimous consent that when the Senate completes its business today, it adjourn until the hour of 10 a.m., Wednesday, March 6; that following the prayer and the pledge, the Journal of proceedings be approved to date, the morning hour be deemed expired, the time for the two leaders be reserved for their use later in the day, and the Senate resume consideration of S. 517, the energy bill.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDER FOR ADJOURNMENT

Mr. REID. Madam President, if there is no further business to come before the Senate, I ask unanimous consent the Senate stand in adjournment under the previous order following the remarks of the Senator from Ohio in relation to S. 517.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Ohio.

Mr. VOINOVICH. Madam President, I ask unanimous consent to speak for as much time as I may need to read my opening statement on the underlying bill that will provide a national energy policy for our country.

The PRESIDING OFFICER. Without objection, it is so ordered.

ENERGY

Mr. VOINOVICH. Madam President, we are facing a problem that every other nation that we share the planet with hopes it will have some day. That is, our country's economic growth will soon outpace our supply of available energy.

The growth of both the high tech and advanced manufacturing sectors in America has created jobs and has created enormous opportunity for our people, and they have created a new demand for energy. One reason these industries have flourished in America is because we have the fuel they need to succeed. We have the ''people'' fuel, the skilled workers with committed hearts and hands; we have the ''idea'' fuel, the smart minds that dream big and can take ideas from the drawing board on to the street; and we have ''good old-fashioned'' fuel, inexpensive, reliable sources of energy that literally make everything move and connect and work.

Other nations have some of these pieces, but they rarely have all of them. That won't always be the case. The world is shrinking, and our competitors, strategic and otherwise, are in hot pursuit. What will we do to stay ahead? What will we do to fuel America's continued success?

Our future success will require us to produce more energy to keep up with the growing demand for it. How big will that demand be? Big. You can see from this chart that there is a large gap currently in terms of the domestic production of energy and consumption. In other words, this open space on this chart is a gap between what we produce domestically and what we consume.

According to the Department of Energy, we are going to have to increase by 30 percent the amount of energy produced by 2015 in order to meet the demand of this great Nation.

In 2000, America used more than 3.8 billion megawatt hours of electricity. The Department of Energy estimates that by 2020, the demand will rise to 5.43 billion megawatts a year, an increase of 1.63 billion. To meet that new demand, the DOE says it will take 1,300 new power plants or, quite simply, the lights will begin to dim on the American dream for a lot of people.

Let's remember, needing more energy is a great problem to have. It means we are creating jobs and we are creating opportunity. The American dream is our country's economic success. It is a gift bequeathed to this generation by generations of men and women who toiled before us.

We are the stewards of this gift. History will judge us based on what this generation of Americans does right now with this gift. Will we keep America's light of opportunity shining, or will we sleep through our watch and let the light flicker out?

I am thankful to the Majority Leader for keeping his word and bringing this issue to the floor of the Senate. However, I disagree with the way it came to the Senate, since the bill should have been considered and voted out of the Energy Committee, instead of being written on the floor of the Senate.

Still, the bill presented before us at least starts the process by laying the foundation and beginning the debate. It has many things worthy about it and many things that we can build upon.

This bill is a good start because, among other things, it encourages greater use of renewable sources of energy, sources which have little or no impact on the environment.

The bill also encourages the use of ethanol, a renewable gasoline additive that helps reduce auto emissions and makes the air cleaner for us and our children to breathe.

It starts the needed debate on reauthorizing the Price-Anderson Act, which is so vital to the future expansion of our nuclear energy industry. But there is much more that we need to do. I have introduced legislation to expand the Price-Anderson reauthorization to include commercial nuclear reactors, as it must, and I hope that we will be able to include it in this bill.

What concerns me about this bill, however, is it raises false hopes. It creates the expectation that it will solve our future energy crises, protect our energy security, and sustain American opportunities. In reality, it doesn't do this. The bill does start in several good directions, but then falls short and is silent on several other key issues, such as energy infrastructure and the need to reduce our dependency on foreign oil.

The majority's bill doesn't fully deliver what America needs, and I would have to oppose it in its current form. I hope that, as we amend it, it is something that I can support and a majority of the Senate can support.

Our energy challenge demands from us the enactment of a comprehensive energy policy, the likes of which we have never seen before in this country. I think the Senator from Oklahoma, Mr. INHOFE, did a very good job in talking about the need for an energy policy. I have wanted one ever since I was mayor of the city of Cleveland in 1979, but in administration after administration, we never got one. Today, we have this golden opportunity to have an energy policy for the United States of America. It has to be a policy that harmonizes energy and environmental policies, acknowledging that the economy and the environment are vitally intertwined, a policy that broadens our base of energy resources to create stability, guarantee reasonable prices, and protect our national security—a policy that won't cause prices to spike, hurting particularly the elderly, disabled, and low-income families, and which won't cripple the engines of commerce that fund the research that will yield future environmental protection technologies—technologies that can be shared with developing nations who currently face severe environmental crises.

In terms of energy security, we need to reduce our reliance on foreign sources of energy. As I pointed out, the gap between what we consume and what we produce is being met by imports—imported oil, imported gas, and other energy sources that we bring into the United States.

As we have all learned in ways too horrific for words, the enemies of freedom will go to extreme lengths to attack our country. As we seek to protect our Nation's freedom of opportunity, we should not do it in ways that make America more vulnerable to these enemies of freedom. We must do everything we can to provide for our energy need from within our Nation's borders.

We are already far too dependent on foreign energy sources. Oil imports have risen from 1973, when we imported 35 percent of our oil, to 58 percent last year. Today, we even import oil from Iraq—750,000 barrels a day. Seven percent of our oil comes from Iraq—the same country over which we fly regular combat missions. Think about that: 7 percent of our oil comes from a country that the President has described as one of the three countries in the Axis of Evil.

The political climate in the Middle East region today is more volatile than at any other time in my memory. For the United States to be so dependent on this part of the world to meet such a large portion of our energy needs makes us extremely vulnerable to being held hostage for oil. If the enemies of our country were willing to take out the World Trade Center and the Pentagon, does anyone doubt that if they had a chance to cut off, or even just disrupt, our energy supply, they would do it? There is no doubt. They would do it and we know it.

As we rely on our own strengths for the answers to the coming energy crisis, we see that no single source of domestic energy is sufficient to meet all of our Nation's needs. Though we are blessed with large reserves of coal, oil, natural gas, renewables, and nuclear fuel, no single energy source can single-handedly solve our problem. That means we have to broaden our base of energy sources. We simply cannot put all of our eggs in one basket. If we were some other nation, diversifying our energy supply might be a great challenge. But we have been blessed. God has blessed us with the resources to solve this problem.

One of our great untapped resources is nuclear energy. Over the past 40 years, we have seen how safe and reliable nuclear energy can be. We currently get 20 percent of our electricity from nuclear energy plants. But this is far below what some countries do. France derives 70 percent of its electricity from nuclear power; Sweden gets 39 percent; South Korea gets 41 percent; and Japan gets 34 percent.

What nuclear energy brings to the table, which is so positive is that it produces zero harmful air emissions. In fact, 40 years of solid waste from all of our Nation's 103 nuclear facilities would fit on a football field to a height of only 10 feet.

Since 1973, the use of nuclear energy has prevented 62 million tons of sulfur dioxide, a key component of acid rain, and 32 million tons of nitrogen oxide, a precursor to ozone, from being released in the atmosphere.

Reauthorizing the Price-Anderson program, which provides needed liability protection for the public's benefit, updating an outdated, duplicative licensing process and creating a permanent repository for nuclear waste, will make it possible for us to take full advantage of the incredible potential this clean energy source provides us. I am going to offer an amendment to help improve the licensing process to facilitate the construction of new nuclear facilities and also address the human capital crisis that is impacting the Nuclear Regulatory Commission. I will be joined by the Senator from Louisiana, Senator LANDRIEU, in this effort.

The other energy source we should turn to more is coal. It is by far our most abundant and cheapest energy resource. Right now, we have enough coal to meet our country's energy needs for the next 250 years. Because coal is so inexpensive, we can provide our vital manufacturing sector with the electricity it needs at prices low enough so that after businesses pay their energy bills, they will still have something left over for other important needs like innovation and research. Just as nuclear energy's challenge is waste storage—and I am glad

we are going to debate the issue of nuclear waste storage at Yucca Mountain—coal's challenge is air emissions. Coal today is cleaner than ever before, but we need to make it even cleaner. We have the technologies available to do so. Coal's low cost makes research and installation of clean coal technology a viable investment. In addition, these technologies can be shared with emerging nations that are largely dependent on coal for electricity. We can help them learn from our experience and spare them future environmental challenges. With clean coal technology, and the incentives to guarantee it will be used, we can ensure that the more than two centuries worth of coal that we have available today can be used as an energy source.

Let's talk about natural gas. It is a key component in meeting our current and future energy needs as some 60 million American homes now use natural gas for heat. Natural gas also provides 15 percent of this Nation's electric power and nearly one-quarter of our total energy supply. These percentages are increasing because natural gas burns cleanly and because it is easier to achieve permits from the EPA for natural gas-powered electric generation facilities. In fact, it is estimated that nearly 95 percent of all new power plants are going to be using natural gas.

Even with this increased usage, production of natural gas has remained fairly stable, and to accommodate the growing demand, imports of natural gas have risen from 4.3 percent of consumption in 1981, to around 16 percent today.

To reduce our reliance on imports, we need to tap the estimated 40 percent of undiscovered natural gas that is located on lands owned by the Federal and State governments. Without this, we face steep price increases in natural gas at a time when we are becoming increasingly dependent upon it.

We saw what can happen with natural gas during last winter's especially cold temperatures. A sudden high demand caught us unprepared when supplies were low and prices shot through the roof, devastating the poor and the elderly. I will never forget holding a meeting in Cleveland with Catholic Charities, Lutheran Housing, and the Salvation Army where they presented the dramatic impact that high natural gas prices were having on the poor, the elderly, and the disabled.

We also need to be mindful that changes we make on energy policy that affect demand for natural gas directly impact on our competitive position in the world marketplace for plastics and fertilizer. In fact, the Ohio Corn Growers Association told me that the high cost of natural gas was impacting the cost of their fertilizer. They said that many of their farmers did not plant as much corn last year because of the high cost of fertilizer.

Right now in America, oil remains the primary source of energy. From heating people's homes to firing energy plants to running our automobiles, it makes up the largest portion of our energy portfolio which keeps our economy humming.

Demand for oil is expected to grow at a constant rate of 1.5 percent per year through the year 2020. To meet that demand, we need to maximize the use of the more than 22 billion barrels of proven oil reserves the United States possesses. We also need to make oil extraction from mature oilfields more economical. The Senator from Oklahoma spoke very eloquently a few minutes ago about the oil that is available if we could only find an economical way to get at it.

Of course, during the consideration of this bill, we will debate an amendment to allow oil exploration in ANWR. We have the technology today to both use our Alaskan oil and protect the region's environment. The potential for new job creation is great, up to 735,000 jobs in a variety of fields, and the added production will help strengthen our energy self-reliance.

Let's turn to conservation. Conservation has proven very successful in reducing energy demand. By incorporating technological breakthroughs into the production of energy-efficient automobiles, high-efficiency homes, and more efficient appliances and machinery, conservation has succeeded in saving us tremendous amounts of money.

I get a little concerned when I hear people say we have not done enough in the area of conservation.

This chart shows that through energy conservation, we have had enormous savings of some $2.5 trillion from 1972 to 1991. This is according to a 1995 Department of Energy report, which is the most up-to-date data we have available. One can see that we have committed this country to conservation, and it is making a big difference.

Legislation that I am working on with Senator LEVIN would encourage continued fuel conservation efforts in automobiles without the devastating blow to our automobile manufacturing jobs that a competing bill would cause. Our proposal would let the technical work of establishing new fuel conservation standards be completed by researchers at the National Highway Transportation and Safety Administration. These new standards would be established only after scientific analysis of the safety, environmental, economic, and efficiency factors involved, which is a more responsible approach than picking an arbitrary number out of thin air.

In the end, we can expect to see greater fuel efficiency without sacrificing safety or a devastating loss of auto worker jobs upon which the economies of many States depend. I can tell my colleagues that the economy in my State depends on it given the amount of auto manufacturing that goes on in Ohio.

I have heard from the United Auto Workers and from the major automobile manufacturers that the language in the majority's bill could actually cause disruption in the economy of that industry. There is another way to put in place standards that will still get the job done in terms of conservation.

Another avenue to focus on is renewable energy sources. We currently rely very little on renewable sources of energy. In fact, wind and solar together make up less than one-tenth of 1 percent of our current energy production, but they are expensive and they are heavily subsidized.

Nevertheless, we need to continue to invest in these forms of energy because they are so environmentally friendly and they contribute to meeting the requirement of national self-reliance.

On the other hand, we must also be realistic about our challenge. While a savings through conservation has reached more than $2.5 trillion over 30 years, the inherent problems of renewable sources make it impossible for them to realize similar savings or fill the growing gap between demand and supply.

In addition, because renewables make up such a small piece of our overall energy picture today, we do not have the capacity to meet our needs in the timeframe we are facing. Right now, as this chart shows, they will not get the job done. However, their growth will come, and should continue to be supported with research funding.

The point I am making is renewables currently make up only about 8 percent of our consumption. Even if we protect them for 20 years, they by themselves will not get the job done in meeting our energy needs. When I am talking about renewables, I am talking about solar, wind, hydropower, biomass, waste, and wood.

In a recent meeting I had with General Motors in Detroit, I was told the company sees fuel cell technology becoming a viable source in the next 10 to 15 years. It is not science fiction to think that our children and grandchildren—it will probably be our grandchildren—will see a time when the roads are traveled by cars run on hydrogen and give off only water.

The majority's bill mandates minimum consumption requirements for renewables and civil penalties if those minimums are not met. We should not be clubbing people for noncompliance. We should be doing everything we can to encourage the adoption of new energy technologies.

Renewables and conservation need to be a bigger part of our new energy policy, but we must also be realistic about our challenge. These two strategies do not have the capacity to meet our growing energy needs in the timeframe we are facing. Anyone who says otherwise either does not know what they are talking about or they are being intellectually dishonest.

Too often I hear people say: All we need to do is use more solar and wind power and it will take care of the problem. Here are the facts. Here is solar

and wind—less than one-tenth of one percent currently. If we project it, solar and wind alone will not get the job done. We are going to need coal, oil, natural gas, nuclear and other sources of energy to meet the demands of the United States of America.

Another important issue we must address is infrastructure. As we develop these new energy sources, we must make sure we can get them to where the people need them. We saw this firsthand 2 years ago when prices for gasoline in the Midwest spiked. The freak combination of a shuttered refinery and a temporarily downed pipeline created a bottleneck that midwesterners paid for all summer long. Low-income Americans were hit especially hard at the pump, and trucking companies and airlines took a big beating.

That is why I introduced legislation last year to help streamline the permitting process for new energy facilities. I hope my legislation, S. 1590, can be added to this bill because I think it would enhance it and make it better.

The problem of distribution is especially critical to the northeastern States as they try to get additional natural gas supplies into their homes and businesses to meet a growing demand.

I encourage my colleagues from that part of the country to take a close look at my provision because I think it is something they should get behind.

The same technology which is helping to drive the demand for more energy has also equipped us with tools to provide that energy. Advanced slant drilling, super-efficient power plants, hyper-accurate seismic research, we have all of these because of our innovative high-tech research.

Technology has also given us new tools to protect our environment and public health, and we must take full advantage of these opportunities because we must be good stewards of what we have been given. I reject the arguments from those on either side of the debate who say we have to choose between the environment and the economy. We now know the success of each is linked. As I have said before, we have to harmonize our energy needs and our environmental needs if we are going to have an energy policy. Only with a thriving economy can we fund the research that will find new ways to protect the environment—the cradle for every living thing on this planet—and the world's ecosystems cannot sustain us if we do not have clean air and clean water.

A growing American economic capability is the only way we can do such things as fight our war on terrorism, provide a prescription drug benefit for seniors, save Social Security from bankruptcy, eliminate our national debt, and meet other financial challenges facing our country. We need to have a growing economy. We know the challenge. We must provide more energy to keep America going. We know we cannot keep relying on unstable foreign sources to do this. We know we have the resources domestically to meet our needs. We also know that doing this in an environmentally responsible way is critical. We know we have the technological know-how to meet these challenges.

The question that remains is whether or not Congress is going to stand in the way of this country's future success or whether we are we going to be part of the solution. As we seek to provide our country the power to succeed, does this body have the power to resist the temptation of partisanship and prove wrong those who say this debate will not end in the successful passage of a good bill? Do we have the courage to work together and do something good for our country and leave the partisan jabs and the hollow victories on the table?

I do not think it is going to be easy, but I think we can do that. I ask my colleagues to join in the constructive work of this body. Let us make it happen. I pray that the Holy Spirit inspires us to do it, for ourselves, for our children, our grandchildren and, yes, the world.

I yield the floor.

ADJOURNMENT UNTIL 10 A.M. TOMORROW

The PRESIDING OFFICER. Under the previous order, the Senate stands adjourned until the hour of 10 a.m. tomorrow.

There being no objection, the Senate, at 7:13 p.m., adjourned until Wednesday, March 6, 2002, at 10 a.m.

CONFIRMATIONS

Executive nominations confirmed by the Senate March 5, 2002:

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

Don V. Cogman, of Connecticut, to be a Member of the National Council on the Arts for a term expiring September 3, 2006.

Katharine DeWitt, of Ohio, to be a Member of the National Council on the Arts for a term expiring September 3, 2006.

Teresa Lozano Long, of Texas, to be a Member of the National Council on the Arts for a term expiring September 3, 2006.