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111TH CONGRESS, 1st Session } HOUSE OF REPRESENTATIVES { REPORT 111–206

PROVIDING FOR A PROGRAM OF RESEARCH, DEVELOPMENT, AND DEMONSTRATION ON NATURAL GAS VEHICLES

JULY 14, 2009.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. GORDON of Tennessee, from the Committee on Science and Technology, submitted the following

REPORT

[To accompany H.R. 1622]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science and Technology, to whom was referred the bill (H.R. 1622) to provide for a program of research, development, and demonstration on natural gas vehicles, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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I. AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. NATURAL GAS VEHICLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROJECTS.

(a) IN GENERAL.—The Secretary of Energy shall conduct a 5-year program of natural gas vehicle research, development, and demonstration. The Secretary shall coordinate with the Administrator of the Environmental Protection Agency, as necessary.

(b) PURPOSE.—The program under this section shall focus on—

(1) the continued improvement and development of new, cleaner, more efficient light-duty, medium-duty, and heavy-duty natural gas vehicle engines;

(2) the integration of those engines into light-duty, medium-duty, and heavy-duty natural gas vehicles for onroad and offroad applications;

(3) expanding product availability by ensuring that technologies researched and developed assist engines and vehicles in meeting Federal and State requirements and standards;

(4) the demonstration and proper operation and use of the vehicles described in paragraph (2) under all operating conditions;

(5) the development and improvement of nationally recognized codes and standards for the continued safe operation of natural gas vehicles and their components;

(6) improvement in the reliability and efficiency of natural gas fueling station infrastructure;

(7) the certification of natural gas fueling station infrastructure to nationally recognized and industry safety standards;

(8) the improvement in the reliability and efficiency of onboard natural gas fuel storage systems;

(9) the development of new natural gas fuel storage materials;

(10) the certification of onboard natural gas fuel storage systems to nationally recognized and industry safety standards;

(11) the use of natural gas engines in hybrid vehicles; and

(12) researching and developing technologies and processes so as to improve and streamline the process by which natural gas conversion systems meet Federal and State requirements and standards.

(c) COOPERATION AND COORDINATION WITH INDUSTRY.—In developing and carrying out the program under this section, the Secretary shall coordinate with the natural gas vehicle industry to ensure cooperation between the public and the private sector.

(d) CONDUCT OF PROGRAM.—The program under this section shall be conducted in accordance with sections 3001 and 3002 of the Energy Policy Act of 1992.

(e) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall provide a report to Congress on the implementation of this section.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $30,000,000 for each of the fiscal years 2010 through 2014 to carry out this section.

(g) DEFINITION.—For purposes of this section, the term "natural gas" means compressed natural gas, liquefied natural gas, biomethane, and mixtures of hydrogen and methane or natural gas.

II. PURPOSE OF THE BILL

The purpose of this bill is to provide for a program of research, development, and demonstration on natural gas vehicles and related technologies.

III. BACKGROUND AND NEED FOR LEGISLATION

Natural gas vehicles have the potential to address important energy security and environmental issues. While the United States imports the majority of the petroleum it uses, most natural gas is domestically produced. As a result, increased use of natural gas vehicles may reduce dependence on foreign oil imports and promote

U.S. energy security. In addition, natural gas vehicles in general have lower pollutant and greenhouse gas emissions than gasoline vehicles.

The Energy Information Administration estimates that there were roughly 116,000 compressed natural gas vehicles in the United States in 2006, and roughly 3,000 liquefied natural gas vehicles. Roughly two-thirds of natural gas vehicles are light-duty (i.e., passenger) vehicles. This compares to roughly 230 million conventional (mostly gasoline) light-duty vehicles. Furthermore, of the roughly 16.5 million new light-duty vehicles sold in 2006, only about 2,000 (0.01%) were natural gas vehicles.

The Vehicle Technologies program at the Department of Energy funds a wide range of research activities on passenger vehicles and heavy-duty trucks. The program's mission is to "develop 'leap frog' technologies that will provide Americans with greater freedom of mobility and energy security, while lowering costs and reducing impacts on the environment." The Department of Energy is currently addressing these research needs through two public-private research programs: the 21st Century Truck Partnership, which conducts research and development through collaborations with the heavy-duty trucking industry, and the FreedomCar and Hydrogen Fuel Initiative programs which examine the pre-competitive, high-risk research needed to develop technologies that will apply to a range of affordable cars and light trucks. Though the Department has funded natural gas vehicle R&D in the past there are currently no activities in this area.

IV. SUMMARY OF COMMITTEE ACTIONS

The Subcommittee on Energy and Environment met to consider H.R. 1622 on June 16, 2009, with no amendments to the bill. The Subcommittee agreed by voice vote to favorably report the bill, H.R. 1622, to the Full Committee on Science and Technology.

The Committee on Science and Technology met on June 24, 2009, to consider H.R. 1622 as reported by the Subcommittee. One amendment was offered by Representative Hall and was adopted by voice vote.

The Committee favorably reported the bill, H.R. 1622, as amended, by a voice vote.

V. SUMMARY OF MAJOR PROVISIONS OF THE BILL, AS REPORTED

Under H.R. 1622, the Secretary of Energy must conduct a 5-year program of natural gas vehicle research, development, and demonstration. The bill defines "natural gas" as "compressed natural gas, liquefied natural gas, biomethane, and mixtures of hydrogen and methane or natural gas".

In carrying out this natural gas vehicle program, the Secretary shall coordinate as necessary with the Administrator of the Environmental Protection Agency and with the natural gas vehicle industry.

The bill specifies that the program must focus on: (1) the continued improvement and development of new, cleaner, more efficient light-duty, medium-duty, and heavy-duty natural gas vehicle engines; (2) the integration of those engines into light-duty, medium-duty, and heavy-duty natural gas vehicles for on-road and off-road applications; (3) expanding product availability by ensuring that

technologies researched and developed assist engines and vehicles in meeting Federal and State requirements and standards; (4) the demonstration and proper operation and use of the vehicles under all operating conditions; (5) the development and improvement of nationally recognized codes and standards for the continued safe operation of natural gas vehicles and their components; (6) improvement in the reliability and efficiency of natural gas fueling station infrastructure; (7) the certification of natural gas fueling station infrastructure to nationally recognized and industry safety standards; (8) the improvement in the reliability and efficiency of onboard natural gas fuel storage systems; (9) the development of new natural gas fuel storage materials: (10) the certification of onboard natural gas fuel storage systems to nationally recognized and industry safety standards; (11) the use of natural gas engines in hybrid vehicles; and (12) researching and developing technologies and processes so as to improve and streamline the process by which natural gas conversion systems meet Federal and State requirements.

The Secretary is required to provide a report to Congress on the implementation of the program within 2 years of enactment.

H.R. 1622 authorizes $30 million for each of the fiscal years 2010 through 2014 to carry out this program.

VI. SECTION-BY-SECTION ANALYSIS OF THE BILL, AS REPORTED

Section 1. Natural Gas Vehicle Research, Development, and Demonstration Projects

Section 1(a) directs the Secretary of Energy, in coordination with the Administrator of the Environmental Protection Agency as necessary, to conduct a five-year program of natural gas vehicle research, development and demonstration.

Section 1(b) lays out the purpose of the program which is to focus on the continued improvement and development of new, cleaner, more efficient light-, medium- and heavy-duty natural gas vehicle engines; the integration of those engines into light-, medium-, and heavy-duty natural gas vehicles for on-road and off-road applications; expanding product availability by ensuring technologies researched and developed assist engines and vehicles in meeting Federal and State requirements and standards; the demonstration and proper operation and use of the vehicles; the development and improvement of nationally recognized codes and standards for natural gas vehicles; improvement in the reliability and efficiency of natural gas fueling station infrastructure; the certification of natural gas fueling station infrastructure; the improvement in the reliability and efficiency of onboard natural gas fuel storage systems; the development of new natural gas fuel storage materials; the certification of onboard natural gas fuel storage systems; the use of natural gas engines in hybrid vehicles; and researching and developing technologies and processes to streamline the process by which natural gas conversion systems meet Federal and State requirements and standards.

Section 1(c) directs the Secretary to coordinate with the natural gas vehicle industry to ensure cooperation between the public and private sector.

Section 1(d) requires the program to be conducted in accordance with sections 3001 and 3002 of the Energy Policy Act of 1992.

Section 1(e) requires the Secretary to provide a report to Congress on the implementation of Section 1 of the Act not later than two years after the date of enactment.

Section 1(f) authorizes the appropriation of $30 million for each of the fiscal years 2010 through 2014.

Section 1(g) defines the term "natural gas" to mean compressed natural gas, liquefied natural gas, biomethane, and mixtures of hydrogen and methane or natural gas.

VII. COMMITTEE VIEWS

The Committee believes that natural gas vehicles (NGVs) can play an important role in reducing transportation sector reliance on petroleum. In 2008 alone, NGVs displaced almost 300 million gallons of petroleum in the United States. Natural gas is domestically available and less susceptible than oil to global price shocks. Though demand for natural gas will rise if more vehicles use it as a fuel, a recently released study by the Potential Gas Committee concluded that U.S. natural gas reserves are 35% higher than previously estimated. Furthermore, natural gas vehicles exhibit drastically lower emissions profiles than comparable gasoline or diesel vehicles. With these factors taken into account the Committee believes that as the U.S. transportation sector transitions to a more diverse range of fuels, natural gas will play an increasingly important role in meeting our nation's energy and environmental needs. Further advances from federally-funded research and development activities will serve to improve the state of NGV technology and allow the country to realize its benefits sooner.

VIII. COST ESTIMATE

A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on Science and Technology prior to the filing of this report and is included in Section IX of this report pursuant to House Rule XIII, clause 3(c)(3).

H.R. 1622 does not contain new budget authority, credit authority, or changes in revenues or tax expenditures. Assuming that the sums authorized under the bill are appropriated, H.R. 1622 does authorize additional discretionary spending, as described in the Congressional Budget Office report on the bill, which is contained in Section IX of this report.

IX. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

H.R. 1622—A bill to provide for a program of research, development, and demonstration on natural gas vehicles

Summary: H.R. 1622 would direct the Secretary of Energy, in coordination with the Environmental Protection Agency, to carry out research, development, and demonstration projects on natural gas vehicles. Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 1622 would cost the federal government $132 million over the 2010–2014 period and $18 million

after 2014. Enacting the bill would not affect direct spending or revenues.

H.R. 1622 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 1622 is shown in the following table. The costs of this legislation fall within budget function 250 (science, space, and technology).

	By fiscal year, in millions of dollars—					
	2010	2011	2012	2013	2014	2010–2014
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Authorization Level	30	30	30	30	30	150
Estimated Outlays	17	25	30	30	30	132

Basis of estimate: For this estimate, CBO assumes the bill will be enacted near the end of 2009 and that the authorized amounts will be appropriated each year. Estimated outlays are based on historical spending patterns for research programs carried out by the Department of Energy.

H.R. 1622 would authorize the appropriation of $150 million over the 2010–2014 period to conduct research, development, and demonstration programs on natural gas vehicles. The programs would focus on developing natural gas engines for on-road and off-road vehicles and on enhancing regulations, standards, and infrastructure to support the use of those vehicles. H.R. 1622 also would require that projects carried out under the program be partially funded by nonfederal sources.

Intergovernmental and private-sector impact: H.R. 1622 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Estimate prepared by: Federal costs: Jeff LaFave; Impact on state, local, and tribal governments: Ryan Miller; Impact on the private sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

X. COMPLIANCE WITH PUBLIC LAW 104–4

H.R. 1622 contains no unfunded mandates.

XI. COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

The oversight findings and recommendations of the Committee on Science and Technology are reflected in the body of this report.

XII. STATEMENT ON GENERAL PERFORMANCE GOALS AND OBJECTIVES

Pursuant to clause (3)(c) of House Rule XIII, the goal of H.R. 1622 is to advance technologies that promote increased usage of natural gas vehicles which may reduce dependence on foreign oil imports, promote U.S. energy security and reduce emissions.

XIII. CONSTITUTIONAL AUTHORITY STATEMENT

Article I, section 8 of the Constitution of the United States grants Congress the authority to enact H.R. 1622.

XIV. FEDERAL ADVISORY COMMITTEE STATEMENT

H.R. 1622 does not establish nor authorize the establishment of any advisory committee.

XV. CONGRESSIONAL ACCOUNTABILITY ACT

The Committee finds that H.R. 1622 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

XVI. EARMARK IDENTIFICATION

H.R. 1622 does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(d), 9(e), or 9(f) of Rule XXI.

XVII. STATEMENT ON PREEMPTION OF STATE, LOCAL, OR TRIBAL LAW

This bill is not intended to preempt any state, local, or tribal law.

XVIII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

H.R. 1622, as reported, makes no changes in existing law.

XIX. COMMITTEE RECOMMENDATIONS

On June 24, 2009, the Committee on Science and Technology favorably reported H.R. 1622, as amended, by a voice vote and recommended its passage by the House of Representatives.

XX. PROCEEDINGS OF THE MARKUP BY THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT ON H.R. 1622, TO PROVIDE FOR A PROGRAM OF RESEARCH, DEVELOPMENT AND DEMONSTRATION OF NATURAL GAS VEHICLES

TUESDAY, JUNE 16, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT,
COMMITTEE ON SCIENCE,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Brian Baird [Chair of the Subcommittee] presiding.

Chair BAIRD. Good morning to everyone. Our committee will now come to order.

Pursuant to notice, the Subcommittee on Energy and Environment meets to consider the following measures: H.R. 2693, the *Federal Oil Pollution Research Program Act;* H.R. 2729, *To authorize the designation of National Environment Research Parks by the Secretary of Energy and for other purposes;* and H.R. 1622, *To provide for a program of research, development and demonstration on natural gas vehicles.* We will now proceed with the markup.

This morning the Energy and Environment Subcommittee meets to consider, as mentioned, three pieces of legislation: the *Federal Oil Pollution Research Program Act,* which is H.R. 2693; also H.R. 2729, the bill to authorize the Department of Energy's National Environment Research Parks; and H.R. 1622, a bill to provide for a program of research and development of vehicles that operate using natural gas as a fuel.

First, the Subcommittee will consider H.R. 2693 authorized by Ms. Woolsey from California, which amends the federal interagency research and development program created in the *Oil Pollution Act of 1990.* This bill would improve the Federal Government's research and development efforts to prevent, detect or mitigate oil discharges. Through this reauthorization, federal agencies will be better equipped to respond to oil discharges wherever they occur.

We will also mark up H.R. 2729, the bill introduced by Mr. Luján from New Mexico to authorize the Department of Energy's seven National Environmental Research Parks. These parks are truly a national treasure, providing large tracts of land that represent nearly all of the major eco-regions in the United States and are a

valuable resource for examining the transport of DOE-related contaminants, the long-term impacts of climate change and the various ways carbon is captured and released within the ecosystem. I am pleased to be a co-sponsor of both H.R. 2693 and H.R. 2729, and I encourage colleagues on both sides of the aisle to join in supporting those important bills.

Finally, the Subcommittee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by Full Committee Ranking Member Mr. Hall. This bill reauthorizes the Department of Energy's research, development and demonstration program in natural gas-powered vehicles and related infrastructure. To transform our nation's energy sector, we must explore a diverse range of fuels and vehicle technologies. While only a piece in a very complex puzzle, natural gas can potentially provide us with an option that is both cleaner than petroleum and more domestically available. I look forward to the discussion on the bill and moving it towards a Full Committee markup.

I thank the Members for their participation this morning and look forward to a productive markup.

I now recognize Mr. Inglis to present opening remarks.

[The prepared statement of Chair Baird follows:]

PREPARED STATEMENT OF CHAIR BRIAN BAIRD

This morning the Energy and Environment Subcommittee meets to consider three pieces of legislation: H.R. 2693, the *Federal Oil Pollution Research Program Act;* H.R. 2729, *A bill to authorize the Department of Energy's National Environmental Research Parks;* and H.R. 1622, *A bill to provide for a program of research and development of vehicles that operate using natural gas as a fuel.*

First, the Subcommittee will consider H.R. 2693, authored by Ms. Woolsey, which amends the federal interagency research and development program created in the *Oil Pollution Act of 1990.* This bill would improve the Federal Government's research and development efforts to prevent, detect, or mitigate oil discharges. Through this reauthorization, federal agencies will be better equipped to respond to oil discharges wherever they occur.

We will also be marking up H.R. 2729, a bill introduced by Mr. Luján to authorize the Department of Energy's seven National Environmental Research Parks. These parks are truly a national treasure, providing large tracts of land that represent nearly all of the major eco-regions in the United States. They are a valuable resource for examining the transport of DOE-related contaminants, long-term impacts of climate change, and the various ways carbon is captured and released within ecosystems.

I am pleased to be a co-sponsor of both H.R. 2693 and H.R. 2729, and I encourage my colleagues on both sides of the aisle to join me in supporting these important bills.

Finally, the Subcommittee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by the Full Committee Ranking Member, Mr. Hall. This bill reauthorizes the Department of Energy's research, development, and demonstration program in natural gas powered vehicles and related infrastructure.

To transform our nation's energy sector we must explore a diverse range of fuels and vehicle technologies. While only a piece in very complex puzzle, natural gas can potentially provide us with an option that is both cleaner than petroleum and domestically available. I look forward to the discussion on the bill and moving it towards a Full Committee markup.

I thank the Members for their participation this morning, and I look forward to a productive markup.

Mr. INGLIS. Good morning, and thank you, Mr. Chair, for this hearing today. We will address several pieces of legislation that highlight the diversity of federal research initiatives into pressing environmental and energy-related problems. It is an opportunity to

reflect on our broad jurisdiction and to ensure that federal research dollars are focused and well spent.

The first bill before us, the *Federal Oil Spill Research Program Act,* will revitalize the federal research efforts focused on the prevention, detection and mitigation of oil spills. While this is critical research and I commend Ms. Woolsey's dedication to this important issue, I am not confident that H.R. 2693 is necessary to improve the interagency commitment to oil spill research. The testimony we heard on this topic two weeks ago indicated that the interagency process seems to be working. The witnesses indicated that the most significant problems were related to limited funding and poor communication with the states. Further, this bill makes NOAA the Chair of the interagency research committee though other federal agencies seem better geared toward leading this particular research effort.

The second bill is H.R. 2729, a bill to permanently authorize the National Environmental Research Parks. I appreciate Mr. Luján's leadership in this area. These facilities are a unique environmental research asset. The Environmental Research Park at the Savannah River site, for example, has provided South Carolina and Georgia students with the opportunity to engage in research in our local ecologies. Especially as we develop new energy alternatives, our Environmental Research Parks will help us understand how our energy choices impact our distinct ecosystems.

I would also like to speak in support of H.R. 1622 and commend Mr. Sullivan for his leadership in promoting the development of natural gas vehicles. As long as we rely on oil to power our transportation sector, the U.S. will be dependent on hostile foreign nations and will continue to fund both sides of the War on Terror. H.R. 1622 will utilize American ingenuity to increase competition and fuel choices in the transportation sector and spur innovation economy and increasing our national security.

Thank you again, Mr. Chair. I look forward to developing legislation that truly improves our diverse federal research efforts.

[The prepared statement of Mr. Inglis follows:]

PREPARED STATEMENT OF REPRESENTATIVE BOB INGLIS

Good morning and thank you for holding this hearing, Mr. Chairman.

Today we will address several pieces of legislation that highlight the diversity of federal research initiatives into pressing environmental and energy related problems. It's an opportunity to reflect on our broad jurisdiction and to ensure that federal research dollars are focused and well spent.

The first bill before us, the *Federal Oil Spill Research Program Act* will revitalize the federal research effort focused on the prevention, detection, and mitigation of oil spills. While this is critical research and I commend Ms. Woolsey's dedication to this important issue, I am not confident that H.R. 2693 is necessary to improve the interagency commitment to oil spill research. The testimony we heard on this topic two weeks ago indicated that the interagency process seems to be working. The witnesses indicated that the most significant problems were related to limited funding and poor communication with the states. Further, this bill makes NOAA the Chair of the interagency research committee, though other federal agencies are better geared toward leading this particular research effort.

The second bill is H.R. 2729, a bill to permanently authorize National Environmental Research Parks. I appreciate Mr. Luján's leadership in this area. These facilities are a unique environmental research asset. The environmental research park at the Savannah River Site has provided South Carolina's research universities and students with the unique opportunity to engage in research on our local ecology. Especially as we develop new energy alternatives, our National Environmental Re-

search Parks will help us understand how our energy choices impact our distinct ecosystems.

I'd also like to speak in support of H.R. 1622 and commend Mr. Sullivan for his leadership in promoting the development of natural gas vehicles. So long as we rely on oil to power our transportation sector, the U.S. will be dependent on hostile foreign nations and we will continue to fund both sides of the war on terror. H.R. 1622 will utilize American ingenuity to increase competition and fuel choice in the transportation sector, spurring our innovation economy and increasing our national security.

Thank you again, Mr. Chairman, and I look forward to developing legislation that truly improves our diverse federal research efforts.

Chair BAIRD. Thank you, Mr. Inglis. Members may place any statements for the record at this point.

We now consider H.R. 1622, *To provide for a program of research, development and demonstration on natural gas vehicles.* I recognize Mr. Inglis to discuss his bill—this bill.

Mr. INGLIS. I thought I grabbed authorship here. This is pretty great.

Chair BAIRD. Anything else you want to discuss, have it. You have five minutes.

Mr. INGLIS. Thank you, Mr. Chair. As I had mentioned earlier, I am very happy to be supportive of this bill, and I think Mr. Sullivan is doing good work here by promoting the development of natural gas vehicles. This technology we know works and is available to us, has been used and is being used. It just hopefully will increase the competitive position of natural gas and introduce this concept of fuel choice in the transportation sector because one of the ways—the best way to break the strategic value of crude oil is to introduce competition and effective fuel choice. And so that is what this bill is about and so I am happy to be supportive and I think there will be great support on this side of the aisle for that concept, and I yield back, Mr. Chair. Thank you.

Chair BAIRD. I thank the gentleman and I think the bill is well summarized. I want to thank Mr. Hall and Ranking Member Sullivan and Mr. Inglis for their work on it. I offer my support and we take this bill to the Full Committee.

Does anyone else wish to be recognized? Mr. Davis is recognized for five minutes.

Mr. DAVIS. Mr. Chair, thank you very much. I think as we look at our portfolio today of transportation, I think we have ignored too long the use of natural gas in our automobiles. It is my understanding that natural gas burns much cleaner, some say as much as 75 to 80 percent cleaner than the fossil fuels that we derive from the other source, that being crude oil. And as I look at our retooling today and revamping the auto industry, especially as we look at the two that are in bankruptcy, it would seem to be very logical that these new automobile companies with the old names should start looking at maybe integrating a storage capacity in the actual structure of those automobiles to where we could get 250 to 300 miles on a fill-up, and I am not hearing much encouragement as I watch this debate that we have today on climate change. I am not hearing much debate that this should be one of the major alternatives that we look at that would replace the fuels that we get today from crude oil, most of which is being imported.

I was excited the last 12 to 14 months as I heard conversations during the campaigns that natural gas should be and could be the

replacement, in many cases, of fuels derived from crude oil, so it is my hope that as we pass this legislation. I am not sure that the amount of dollars we are talking about is even adequate, but I think that we have today, in this country, a valuable resource that is under-utilized that can in fact play a major role in helping reduce the climate change that we are seeing and can help reduce carbon emissions. And it is my hope that this legislation passes and that we even start exerting more interest in seeing this as an alternative to crude oil.

Chair BAIRD. I thank the gentleman for his comments, and I share his interest in the issue of storage technology. There has been some fascinating work done recently using carbon nanotubes to enhance storage technology of gas and perhaps we can explore that at a future date.

Ms. Woolsey had indicated a—Ms. Woolsey, did you want to offer comments?

Ms. WOOLSEY. No.

Chair BAIRD. Are there any additional Members wishing to offer comments? If no, I ask unanimous consent that the bill is considered as read and open to amendment at any point. Without objection, so ordered.

Are there any amendments to this legislation? If no, then the vote will occur on the bill, H.R. 1622. All in favor, say aye. All those opposed, no. In the opinion of the Chair, the ayes have it.

I recognize myself to offer a motion. I move that the Subcommittee favorably report H.R. 1622 to the Full Committee. Furthermore, I move that the staff be instructed to prepare the Subcommittee report and make necessary technical and conforming changes to the bill in accordance with the recommendations of the Subcommittee.

The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes have it. The bill is favorably reported. Without objection, the motion to reconsider is laid upon the table. Members will have two subsequent calendar days in which to submit supplemental Minority or additional views on the measure.

I want to thank Members for their attendance. This concludes our Subcommittee markup.

[Whereupon, at 10:58 a.m., the Subcommittee was adjourned.]

Appendix:

H.R. 1622, Section-by-Section Analysis

I

111TH CONGRESS
1ST SESSION

H. R. 1622

To provide for a program of research, development, and demonstration on natural gas vehicles.

IN THE HOUSE OF REPRESENTATIVES

MARCH 19, 2009

Mr. SULLIVAN (for himself, Mr. HALL of Texas, Mr. GENE GREEN of Texas, and Mr. BOREN) introduced the following bill; which was referred to the Committee on Science and Technology

---

A BILL

To provide for a program of research, development, and demonstration on natural gas vehicles.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. NATURAL GAS VEHICLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROJECTS.

(a) IN GENERAL.—The Secretary of Energy shall conduct a 5-year program of natural gas vehicle research, development, and demonstration. The Secretary shall coordinate with the Administrator of the Environmental Protection Agency, as necessary.

(b) PURPOSE.—The program under this section shall focus on—

(1) the continued improvement and development of new, cleaner, more efficient light-duty, medium-duty, and heavy-duty natural gas vehicle engines;

(2) the integration of those engines into light-duty, medium-duty, and heavy-duty natural gas vehicles for onroad and offroad applications;

(3) expanding product availability by assisting manufacturers with the certification of the engines or vehicles described in paragraph (1) or (2) to Federal or California certification requirements and in-use emission standards;

(4) the demonstration and proper operation and use of the vehicles described in paragraph (2) under all operating conditions;

(5) the development and improvement of nationally recognized codes and standards for the continued safe operation of natural gas vehicles and their components;

(6) improvement in the reliability and efficiency of natural gas fueling station infrastructure;

(7) the certification of natural gas fueling station infrastructure to nationally recognized and industry safety standards;

(8) the improvement in the reliability and efficiency of onboard natural gas fuel storage systems;

(9) the development of new natural gas fuel storage materials;

(10) the certification of onboard natural gas fuel storage systems to nationally recognized and industry safety standards; and

(11) the use of natural gas engines in hybrid vehicles.

(c) CERTIFICATION OF CONVERSION SYSTEMS.—The Secretary shall coordinate with the Administrator on issues related to streamlining the certification of natural gas conversion systems to the appropriate Federal certification requirements and in-use emission standards.

(d) COOPERATION AND COORDINATION WITH INDUSTRY.—In developing and carrying out the program under this section, the Secretary shall coordinate with the natural gas vehicle industry to ensure cooperation between the public and the private sector.

(e) CONDUCT OF PROGRAM.—The program under this section shall be conducted in accordance with sections 3001 and 3002 of the Energy Policy Act of 1992.

(f) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall provide a report to Congress on the implementation of this section.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $30,000,000 for each of the fiscal years 2010 through 2014 to carry out this section.

(h) DEFINITION.—For purposes of this section, the term ''natural gas'' means compressed natural gas, liquefied natural gas, biomethane, and mixtures of hydrogen and methane or natural gas.

○

SECTION-BY-SECTION ANALYSIS OF H.R. 1622, TO PROVIDE FOR A PROGRAM OF RESEARCH, DEVELOPMENT, AND DEMONSTRATION ON NATURAL GAS VEHICLES

Section 1. Natural Gas Vehicle Research, Development, and Demonstration Projects

Section 1(a) directs the Secretary of Energy, in coordination with the Administrator of the Environmental Protection Agency as necessary, to conduct a five-year program of natural gas vehicle research, development and demonstration.

Section 1(b) lays out the purpose of the program which is to focus on the continued improvement and development of new, cleaner, more efficient light-, medium- and heavy-duty natural gas vehicle engines; the integration of those engines into light-, medium-, and heavy-duty natural gas vehicles for on-road and off-road applications; expanding product availability by assisting manufacturers with the certification of the engines; the demonstration and proper operation and use of the vehicles; the development and improvement of nationally recognized codes and standards for natural gas vehicles; improvement in the reliability and efficiency of natural gas fueling station infrastructure; the certification of natural gas fueling station infrastructure; the improvement in the reliability and efficiency of on-board natural gas fuel storage systems; the development of new natural gas fuel storage materials; the certification of on-board natural gas fuel storage systems; and the use of natural gas engines in hybrid vehicles.

Section 1(c) deals with certification of conversion systems and directs The Secretary to coordinate with the EPA Administrator on issues related to streamlining the certification of natural gas conversion systems to the appropriate federal certification requirement and in-use emission standards.

Section 1(d) directs the Secretary to coordinate with the natural gas vehicle industry to ensure cooperation between the public and private sector.

Section 1(e) requires the program to be conducted in accordance with sections 3001 and 3002 of the *Energy Policy Act of 1992*.

Section 1(f) requires the Secretary to provide a report to Congress on the implementation of Section 1 of the Act not later than two years after the date of enactment.

Section 1(g) authorizes the appropriation of $30 million for each of the fiscal years 2010 through 2014.

Section 1(h) defines the term "natural gas" to mean compressed natural gas, liquefied natural gas, biomethane, and mixtures of hydrogen and methane or natural gas.

XXI. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 1622, TO PROVIDE FOR A PROGRAM OF RESEARCH, DEVELOPMENT AND DEMONSTRATION ON NATURAL GAS VEHICLES

WEDNESDAY, JUNE 24, 2009

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The Committee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Bart Gordon [Chair of the Committee] presiding.

Chair GORDON. The Committee will come to order.

Pursuant to notice, the Committee on Science and Technology meets to consider the following measures: H.R. 2965, the *Enhancing Small Business Research and Innovation Act of 2009;* H.R. 2729, *To authorize the designation of National Environment Research Parks by the Secretary of Energy and for other purposes;* and H.R. 1622, *To provide for the programs of research, development and demonstration on natural gas vehicles.*

Today the Committee is going to mark up three good bipartisan pieces of legislation. The first bill, H.R. 2965, the *Enhancing Small Business Research and Innovation Act,* is one of the most significant bills the Committee will likely address in this Congress. The Small Business Innovation Research Program (SBIR) is a more than $2.3 billion federal investment in small high-tech businesses that assist them in developing commercial products and assist agencies in their mission related to research agendas. It is the single largest federal program supporting the private sector research activities.

Since its beginning more than 25 years ago, we have learned about the significant contributions small high-tech startup companies can have to our economy and employment growth. AmGen, Apple, Microsoft, Genetech, Research-in-Motion all started as small high-tech entrepreneurial firms. In the current economic environment, we need to do everything possible to support small high-tech entrepreneurs in the United States, which is the goal of the SBIR program.

There is no stronger supporter of the SBIR program than Representative David Wu. H.R. 2965 is largely the result of hard work by Representative Wu. In the 110th and 111th Congress, he has held three Subcommittee hearings on the program and he has

worked closely with the Small Business Committee in crafting this legislation. H.R. 2965 is substantially the same bill which passed the House last year with only 43 no votes. H.R. 2965 was introduced with strong bipartisan support.

Unfortunately, the SBIR program is operating under rules more than 25 years old. H.R. 2965 makes major improvements to the SBIR program which reflects the current set of challenges confronting our small high-tech entrepreneurs. I strongly support this legislation and will work with my counterpart on the Small Business Committee to bring it to the Floor as quickly as possible. This program is set to expire on July 31, so time is of the essence.

Today we will also consider H.R. 2729, a bill introduced by Representative Luján that will formally authorize the seven National Environmental Research Parks supported by the Department of Energy (DOE). These parks are a truly unique national resource. They provide large tracks of undisturbed land that enable long-term research in environmental sciences, climate change and for the development and testing of methods to clean up past pollutions. The parks are located on DOE sites in states across the country. They have had bipartisan cooperation in making this a good bill, and I hope that you will all join me in supporting it.

Finally, the Committee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by my friend from Texas, Mr. Hall, as well as Mr. Luján and Mr. Lucas. This bill reauthorizes the Department of Energy's research, development and demonstration program in natural gas-powered vehicles and related infrastructure. The vehicle fleet of the future will include a diverse range of fuels and vehicle technologies, and since it is both cleaner than petroleum and domestically available, natural gas will likely play an important role in a more sustained transportation sector.

I hope we can continue to improve these bills in a bipartisan manner today, and I look forward to moving to the Floor for their final passage.

I now recognize Mr. Hall to present his opening remarks.

[The prepared statement of Chair Gordon follows:]

PREPARED STATEMENT OF CHAIR BART GORDON

Today the Committee is going to markup three good, bipartisan pieces of legislation. The first bill, H.R. 2965, the *Enhancing Small Business Research and Innovation Act,* is one of the most significant bills the Committee will likely address in this Congress.

The Small Business Innovation Research Program (SBIR) is a more than 2.3 billion dollar federal investment in small high-tech businesses that assists them in developing commercial products and assists agencies in their mission-related research agendas.

It is the single largest federal program supporting private-sector research activities.

Since its beginning more than 25 years ago, we have learned about the significant contributions small high-tech start-up companies can have to our economic and employment growth—AmGen, Apple, Microsoft, Genetech, and Research-in-Motion all started as small high-tech entrepreneurial firms. In the current economic environment we need to do everything possible to support small high-tech entrepreneurs in the United States, which is the goal of the SBIR program.

There is no stronger supporter of the SBIR program than Representative David Wu. H.R. 2965 is largely the result of hard work by Representative Wu. In the 110th and 111th Congresses he has held three Subcommittee hearings on the program and has worked closely with the Small Business Committee in crafting this

legislation. H.R. 2965 is substantially the same bill which passed the House last year with only 43 no votes. H.R. 2965 was introduced with strong bipartisan support.

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They provide large tracts of undisturbed land that enable long-term research in environmental sciences, climate change, and for the development and testing of methods to clean up past pollution.

The Parks are located on DOE sites in states across the country, including my home State of Tennessee. We've had bipartisan cooperation in making this a good bill, and I hope you will all join me in supporting it.

Finally, the Subcommittee will consider H.R. 1622, a bill introduced by Mr. Sullivan of Oklahoma and co-sponsored by my friend from Texas, Mr. Hall, as well as Mr. Luján and Mr. Lucas. This bill reauthorizes the Department of Energy's research, development, and demonstration program in natural gas powered vehicles and related infrastructure.

The vehicle fleet of the future will include a diverse range of fuels and vehicle technologies.

And since it is both cleaner than petroleum and domestically available, Natural gas will likely play an important role in a more sustainable transportation sector.

I hope we can continue to improve these bills in a bipartisan manner today, and I look forward to moving to the Floor for final passage.

I now recognize Mr. Hall to present his opening remarks.

Mr. HALL. Mr. Chair, I thank you, and as you say, today we are marking up three bills: H.R. 2965, and the other two bills authorizing the designation of National Research Parks by the Secretary of Energy and for H.R. 1622 that provides a program of research, development and demonstration on natural gas vehicles.

As you ably pointed out, H.R. 2965 extends and makes important changes to the Small Business Innovation Research Program and the Small Business Technology Transfer Program, which as their names indicate, fund innovation and technology development of America's small businesses. One of the basic purposes of my parroting what you are saying is that I speak for myself when I say I support this bill and note that both the Committee and the Full House passed a bill very similar to this version last year, as you ably pointed out, and I am pleased that we are again able to advance this bill in a bipartisan fashion, working closely with the Majority as well as our counterparts on the Small Business Committee. This has allowed us to build a strong legislative record on this program which will serve us well as we aim to complete Floor action and conference negotiations before the program expires on July 31.

H.R. 2729 will authorize and make permanent the existing seven National Environmental Research Parks across the country. The National Environmental Research Parks are outdoor laboratories that provide opportunities for environmental studies on protected lands that act as buffers around the Department of Energy facilities. I commend Mr. Luján for his dedication on the Parks and for authorizing this legislation. I will be offering an amendment to the bill that came about as a result of consultation with the Parks and with the Majority staff to clarify that the Parks and the sites they are located on shall continue to be run as they currently are.

H.R. 1622 reauthorizes the natural gas vehicle R&D program that was created in the 1992 *Energy Policy Act.* This bill was introduced by Representative John Sullivan of Oklahoma and I co-sponsored as does Representative Lucas on this committee. On a well-to-wheels basis, natural gas vehicles produce 22 percent less greenhouse gases than comparable diesel vehicles and 29 percent less gasoline vehicles. In 2007, natural gas vehicles displaced 250 million gallons of petroleum in the United States. In the next 17 years, the industry's goal is to grow that to 10 billion gallons. Over 60 percent of the petroleum used in America is imported. Much of it is from countries that are unstable and do not have the best interests of the United States in mind. Meanwhile, almost 98 percent of the natural gas used in America is produced in North America, 85 percent in the U.S. and the rest in Canada. Just last Thursday the report by the Potential Gas Committee, the authority on gas supplies, shows that the United States holds far larger reserves than previously thought, 35 percent more than the previous report showed in 2006. Natural gas makes sense as a transition fuel, and this bill will help us get more natural gas vehicles on the road. I will be offering an amendment to H.R. 1622 that will simply clear up some wording in order to avoid potential jurisdictional issues.

And since I have just a little bit of time left, I want to yield the balance of my time to Congressman Adrian Smith for additional comments on H.R. 2965.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Thank you Mr. Chairman. Today we're marking up three bills, H.R. 2965, the *Enhancing Small Business Research and Innovation Act of 2009;* H.R. 2729, *To authorize the designation of National Environmental Research Parks by the Secretary of Energy, and for other purposes;* and H.R. 1622, *To provide for a program of research, development, and demonstration on natural gas vehicles.*

H.R. 2965 extends and makes important changes to the Small Business Innovation Research program (SBIR) and the Small Business Technology Transfer program (STTR), which, as their names indicate, fund innovation and technology development at America's small businesses. I support this bill, and note that both the Committee and the Full House passed a very similar version last year. I'm pleased that we're again able to advance this bill in a bipartisan fashion, working closely with the Majority as well as our counterparts on the Small Business Committee. This has allowed us to build a strong legislative record on this program, which will serve us well as we aim to complete Floor action and conference negotiations before the program expires on July 31st.

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H.R. 1622 reauthorizes the natural gas vehicle RD&D program that was created in the 1992 *Energy Policy Act.* This bill was introduced by Rep. John Sullivan of Oklahoma and is co-sponsored by myself and Rep. Lucas on this committee. On a well-to-wheels basis, natural gas vehicles produce 22 percent less greenhouse gases than comparable diesel vehicles and 29 percent less than gasoline vehicles. In 2007, natural gas vehicles displaced 250 million gallons of petroleum in the U.S. In the next 17 years, the industry's goal is to grow that to 10 billion gallons. Over 60 percent of the petroleum used in America is imported—much of it from countries that are unstable or do not have the best interests of the U.S. in mind. Meanwhile, al-

most 98 percent of the natural gas used in America is produced in North America—85 percent in the U.S. and the rest in Canada.

Just last Thursday, the report by the Potential Gas Committee, the authority on gas supplies, shows the United States holds far larger reserves than previously thought—35 percent more that the previous report showed in 2006. Natural gas makes sense as a transition fuel, and this bill will help us get more natural gas vehicles on the road. I will be offering an amendment to H.R. 1622 that will simply clear up some wording in order to avoid potential jurisdictional issues.

With that I yield back the balance of my time.

Chair GORDON. Members may place statements in the record at this point.

We will now consider H.R. 1622, *To provide for the program of research, development and demonstration of natural gas vehicles. I recognize Mr. Hall to present any remarks on the bill.*

Mr. HALL. Thank you, Mr. Chair.

For natural gas vehicles to achieve their market potential, federally funded R&D is needed to expand product offerings of engines to meet a wider range of applications. The process of integrating these natural gas engines into additional medium- and heavy-duty vehicle platforms has to be accelerated. These platforms include school buses, transit buses, trash trucks, delivery trucks and over-the-road trucks as well as marine and off-road applications. Natural gas hybrid electric platforms must be expedited too. In addition, the cost and weight of compressed and liquefied natural gas storage systems must be reduced. Finally, work must continue on improving NGV and NGV fueling safety codes and standards.

H.R. 1622 authorizes the U.S. Department of Energy to fund natural gas vehicle research, development and demonstration needs on natural gas vehicles and to coordinate this research with the Environmental Protection Agency and the private sector if necessary. I think it is a good bill at a good time and I urge my colleagues to vote in favor of the passage.

With that, I yield back the balance of my time.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Thank you Mr. Chairman. For natural gas vehicles to achieve their market potential, federally funded R&D is needed to expand product offerings of engines to meet a wider range of applications. The process of integrating those natural gas engines into additional medium- and heavy-duty vehicle platforms must be accelerated. Those platforms include school buses, transit buses, trash trucks, delivery trucks and over-the-road trucks, as well as marine and off-road applications. Natural gas hybrid-electric platforms must be expedited, too. In addition, the cost and weight of compressed and liquefied natural gas storage systems must be reduced. Finally, work must continue on improving NGV and NGV fueling safety codes and standards.

H.R. 1622 authorizes the U.S. Department of Energy to fund natural gas vehicle research, development and demonstration needs on natural gas vehicles and to coordinate this research with the Environmental Protection Agency and the private sector if necessary.

I think this is a good bill at a good time and I urge my colleagues to vote in favor of passage. With that I yield back the balance of my time.

Chair GORDON. Does anyone else wish to be recognized? Mr. Bilbray is recognized.

Mr. BILBRAY. Yes Mr. Chair.

Mr. Chair, it is not often that those of us that are the clean air fanatics in California can agree with the drill-the-ground fanatics in Texas. But I think natural gas fueling is really one of those

things we can do. And I have to apologize to my colleagues here on the Committee. I have not forwarded you the new carbon standard on fuels and the ranking that the Air Resource Board in California has come out with and I will send you that copy because natural gas is a big winner on this, not only from the greenhouse gas point of view, but the fact that this system is a sealed system with natural gas which avoids a major problem that we have with emissions with a traditional system of either ethanol or gasoline, and that is evaporative emissions. By having the sealed emission, you avoid a whole emission problem that is overlooked. You always hear people talk about tailpipe emissions but not what is coming out in evaporation.

The natural gas issue is a real untouched resource. In 1992, I drove a natural gas vehicle, used it regularly as my county car and really was frustrated with the fact that maybe because there wasn't any real agenda being pushed or leadership in Washington, we didn't see that reflected, and I think that I would ask all of you to remember that one of our challenges of going to alternative fuels, as we call it, is the infrastructure. But in the suburban area, the overwhelming majority of homes are plumbed with natural gas today and one of the things I want to make sure is clear in the record that when we talk about refueling, we should not only be talking about centralized gas station type of refueling but also the development of technology for home dispensing so that individuals can actually fuel up their vehicle while the car is parked in the garage, which then gives the consumer the choice to be able to use that natural gas every morning rather than going off to the alternative fuel, which may be gasoline or ethanol or some other fuel. And so there is a real excitement here that there is an infrastructure there that goes to most homes. There is a technology that has the power to be able to generate the needs of light-duty and heavy-duty trucks and the fact that it is very cost-effective and we have over 300 or 400 years' capacity of this fuel, and when you see the fuel at the index for greenhouse gases, you will be very impressed with how underestimated the benefits of natural gas are.

So I just want to praise the authors of this bill and look forward to moving forward. Make sure that when we talk about federal standards we also, Mr. Chair, include the unified building code so that our building inspectors in our community are not only allowing but encouraging people to go to this technology for their home dispensing so that we don't have to rely on building alternative infrastructures, so I yield back and I want to thank you very much for bringing this forward to the authors.

Chair GORDON. Thank you, Mr. Bilbray for that good input.

Does anyone else wish to be recognized? If not, let me again thank Mr. Sullivan and Ranking Member Hall for the good work on this bill and staff, the work of Elizabeth Chapel and Chris King, that brought us a good bill.

I ask unanimous consent that the bill is considered as read and open to amendment at any point and that the Members proceed with the amendments in order of the roster. Without objection, so ordered.

The first amendment on the roster is an amendment offered by the gentleman from Texas, Mr. Hall. Are you ready to proceed with your amendment?

Mr. HALL. I am ready to proceed. I do have an amendment at the desk.

Chair GORDON. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 1622, amendment number 001, offered by Mr. Hall of Texas.

Chair GORDON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentleman for five minutes to explain the amendment.

Mr. HALL. Mr. Chair, I won't take that long. As I said in my opening statement, this amendment simply aims to ensure that this bill remains in the sole jurisdiction of the Science and Technology Committee by rewording one of the areas of focus and adding a clarifying area of focus. It does not make any legislation changes to the bill. I urge the passage.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Mr. Chairman, as I said in my opening statement, this amendment simply aims to ensure that this bill remains in the sole jurisdiction of the Science and Technology Committee by rewording one of the areas of focus, and adding a clarifying area of focus. It does not make any legislative changes to the bill.

Chair GORDON. That was a good objective. Is there further discussion to the amendment? If no, the vote occurs on the amendment. All in favor, say aye. Opposed, no. The ayes have it and the amendment is agreed to.

Are there any other amendments? If no, the vote is on the bill, H.R. 1622 as amended. All those in favor will say aye. All those opposed, no. In the opinion of the Chair, the ayes have it.

I recognize Mr. Hall to offer a motion.

Mr. HALL. Mr. Chair, I move that the Committee favorably report H.R. 1622 as amended to the House with the recommendation that the bill as amended do pass. Furthermore, I move that the staff be instructed to prepare the legislative report and make necessary technical and conforming changes and that the Chair take all necessary steps to bring the bill before the House for consideration. I yield back.

Chair GORDON. The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes have it. The bill is favorably reported.

Without objection, the motion to reconsider is laid upon the table. Members will have two subsequent calendar days in which to submit supplemental Minority or additional views on the measure. And let me again in closing say that just because we didn't have a lot of rancor today does not mean that we did not have three very good bills. For some that came in a little after the opening statements, I want to remind you that our first bill was a $2.3 billion authorization for research in small business innovation. It is the largest such program in the Federal Government. When we are talking about creating new jobs for this country, it is going to go a long way, and so I thank you for helping. I want to thank the

Members for their attendance. This concludes our Committee markup.

[Whereupon, at 11:40 a.m., the Committee was adjourned.]

Appendix:

Amendment Roster

COMMITTEE ON SCIENCE AND TECHNOLOGY
FULL COMMITTEE MARKUP
JUNE 24, 2009

AMENDMENT ROSTER

H.R. 1622, to provide for a program of research, development, and demonstration on natural gas vehicles

No.	Sponsor	Description	Results
1	Mr. Hall (001)	Replaces "expanding product availability by assisting manufacturers with the certification of the engines or vehicles described in paragraph (1) or (2) to Federal or California certification requirements and in-use emission standards" with "expanding product availability by ensuring that technologies researched and developed assist engines and vehicles in meeting Federal and State requirements and standards" as one of the purposes of the program. Adds "researching and developing technologies and processes so as to improve and streamline the process by which natural gas conversion systems meet Federal and State requirements" as a new purpose of the program. Strikes a provision requiring the Secretary of Energy to coordinate with the Administrator on issues related to streamlining the certification of natural gas conversion systems to the appropriate Federal certification requirements and in-use emission standards.	Agreed to by voice vote

AMENDMENT TO H.R. 1622

OFFERED BY MR. HALL OF TEXAS

Page 2, lines 10 through 14, amend paragraph (3) to read as follows:

1 (3) expanding product availability by ensuring
2 that technologies researched and developed assist en-
3 gines and vehicles in meeting Federal and State re-
4 quirements and standards;

Page 3, line 10, strike "and".

Page 3, line 12, strike the period and insert "; and".

Page 3, after line 12, insert the following new paragraph:

5 (12) researching and developing technologies
6 and processes so as to improve and streamline the
7 process by which natural gas conversion systems
8 meet Federal and State requirements and standards.

Page 3, lines 13 through 17, strike subsection (c) (and redesignate the subsequent subsections accordingly).