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Energy Efficiency and Renewable Energy Legislation in the 110th Congress

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Summary

This report reviews the status of energy efficiency and renewable energy legislation introduced during the 110th Congress. Most action in the second session is focused on the FY2009 budget request, the Farm Bill (H.R. 2419), and three bills (H.R. 6049, H.R. 5984/H.R. 3221 [S. 2821], and S. 2886) that would extend or modify selected renewable energy and energy efficiency tax incentives.

The Climate Security Act (S. 3036) would establish a cap-and-trade system to reduce carbon dioxide and other greenhouse gas emissions. Eight of the bill's 17 titles contain provisions for energy efficiency or renewable energy.

The proposed Energy and Tax Extenders Act (H.R. 6049) was approved by the House Committee on Ways and Means by a vote of 25-12. It would extend or re-establish tax incentives to support renewable electricity production, biofuels production, transportation efficiency and conservation, buildings efficiency, and equipment efficiency. The Administration has opposed similar energy provisions of the predecessor bill, H.R. 5351, because of its proposal to generate revenue offsets from the repeal of certain oil and natural gas subsidies. In contrast, H.R. 6049 would derive offsets from a tax change for deferred compensation in offshore companies and delayed relaxation of a foreign tax credit limit.

The proposed Clean Energy Tax Stimulus Act appears as Title X of the Senate's Foreclosure Prevention Act (H.R. 3221). H.R. 5984 has identical provisions. For renewables, the bill would extend or modify the production tax credit, the business solar tax credit, the residential solar tax credit, and the clean renewable energy bonds (CREBs). For energy efficiency, it would extend or modify the credit for existing homes, the credit for new homes, the commercial building deduction, and the appliance credit for manufacturers. Title IV of the proposed Alternative Minimum Tax and Extenders Tax Relief Act (S. 2886) contains the same eight incentives, but with more limited extension periods and without several credit expansions proposed in H.R. 3221. Neither H.R. 3221 nor S. 2886 contains revenue offsets.

DOE's FY2009 budget request seeks $1,256.1 million for Energy Efficiency and Renewable Energy (EERE) programs, compared to $1,722.4 million for FY2008.

The enacted "2008 Farm Bill" extends, expands, and adds to several energy efficiency and renewable energy provisions of the Farm Security Act of 2002.

More than 360 bills on energy efficiency and renewable energy have been introduced. About one-third of these bills are focused on renewable fuels and about one-third would provide a tax incentive for investment, energy production, fuel use, or fuel reduction. For each bill listed in this report, a brief description and a summary of action are given, including references to committee hearings and reports. Also, a selected list of congressional hearings, CRS reports, and Government Accountability Office (GAO) documents on energy efficiency and renewable energy are included. This report will be updated periodically.

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Energy Efficiency and Renewable Energy Legislation in the 110th Congress

Introduction

This report summarizes action on more than 360 energy efficiency and renewable energy bills introduced during the 110th Congress.[1] These bills cover a wide range of policy and issue areas that include appropriations, authorizations, budget, research and development (R&D), grants, loans, financing, regulation (including a renewable fuel standard), tax incentives, goals, plans, impacts, and the environment/climate change.[2] Most of these bills have focused on grants and tax incentives. The bills also cover a range of sectors and topics that include buildings, defense, education, federal lands and energy management, farms, American Indians, and international activities. Thus far, the sector of international activities has generated the greatest number of bills. **Table 2** groups the bills by topic.

The bills can also be categorized by type of renewable resource, type of energy efficiency measure, and technology. They cover a broad range of energy efficiency measures and technologies, including distributed generation, net metering, equipment and appliance standards, fuel economy standards, and transportation efficiency. Most of these bills address transportation and fuel economy. These bills also cover a broad range of renewable energy resources and technologies, including alcohol fuels, biofuels, biodiesel, biopower, biomass, geothermal, hydrogen, hydropower, solar, and wind. So far, the fuels area has generated the greatest number of bills.

For each bill listed in this report, a brief description and a summary of action are given, including references to committee hearings and reports.

Climate Security Act

Lieberman-Warner Climate Security Act (S. 3036)

S. 3036 would establish a mandatory cap-and-trade system at the Environmental Protection Agency (EPA) that aims to reduce overall emissions of carbon dioxide and

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[1] This report is intended to complement CRS Report RL33599, *Energy Efficiency Policy: Budget, Electricity Conservation, and Fuel Conservation Issues*, and CRS Report RL33588, *Renewable Energy Policy: Tax Credit, Budget, and Regulatory Issues*, both by Fred Sissine.

[2] Bills on climate change are discussed in CRS Report RL33846, *Greenhouse Gas Reduction: Cap-and-Trade Bills in the 110th Congress*, by Larry Parker and Brent D. Yacobucci.

other greenhouse gases (GHG) by 66% from 2005 levels in 2050. The system would control emissions through the annual distribution of emissions permits or "allowances." Each allowance would represent an authorization to emit one metric ton of carbon dioxide equivalent. The bill would legislate an upper limit ("ceiling" or "cap") that controls total emissions by fixing the number of allowances that would be distributed each year. Thus, the number of allowances would cap the annual emissions by "covered" entities. Each covered entity would be required to submit one allowance to EPA for each ton of carbon dioxide equivalent that it emits. The covered entities would include major processors and users of fossil fuels, such as petroleum refiners and importers, natural gas processing facilities, and facilities that use more than 5,000 tons of coal per year. Total emissions would be reduced by gradually shrinking the cap on the number of allowances distributed each year. A covered entity that would have a high cost to reduce emissions could buy, or "trade," allowances with an entity that has a lower cost to curb emissions.

The bill would employ three ways of distributing the allowances. Initially, in 2012, about 35% of the allowances would be distributed to entities in covered sectors, about 35% would go to non-covered entities (such as state and local governments), and about 30% would be sold through auctions. In succeeding annual distributions, the share of allowances to covered entities would gradually decline to zero. Meanwhile, the annual share of auctioned allowances would grow. Revenue from the auctioned allowances would be used for multiple purposes. One purpose would be to accelerate deployment of new energy technologies, including energy efficiency and renewable energy technologies.

The auctions would be conducted by an independent Climate Change Credit Corporation (§4201). Each year, 52% of the auction proceeds would be used to support energy technology deployment programs (§4302). Thirty-nine (39) percentage points of that 52% would be used for energy efficiency and renewable energy incentive programs (§4401). The breakdown of the 39% for efficiency and renewables programs includes 16.4% for zero- or low-carbon energy technologies deployment (§4402), 3.1% for fuel from cellulosic biomass (§4404), 6.2% for an advanced technology vehicle manufacturing incentive (§4405), and 13.0% for sustainable energy (§4406).

Other sections of the bill that would encourage or support energy efficiency and renewable energy technologies include state allocation for electric energy savings (§3401), natural gas energy savings (§3501), rural energy (§4502), worker training (§4601-§4606), appliance efficiency standards (§5101-§5102), and building efficiency standards (§5201-§5202).

Boxer Substitute Amendment to S. 3036

Chairman Boxer of the Senate Committee on Environment and Public Works circulated a "Dear Colleague" letter announcing a proposed substitute amendment to S. 3036. The substitute contains a similar structure for the cap-and-trade system put forward in S. 3036. However, the proposed amendment differs from S. 3036 in some key aspects. As noted in the letter:

> ... This substitute reflects an enormous contribution from Senators on both sides of the aisle, and I am happy to tell you it is deficit neutral, [and] it provides a very large tax cut to assist consumers with their energy bills.... In addition to providing the needed assistance to consumers, the revenues are used to fund the technologies that are needed to bring about a transition to clean energy. [3]

Compared with S. 3036, the Boxer substitute proposes a broader and stronger array of incentives for the deployment of energy efficiency and renewable energy measures. Eight of the 17 titles contain such measures. The key provisions are

- *Title I.* Subtitle B would direct EPA to conduct an "early action" program for clean technology deployment that provides grants for energy-efficient buildings, super-efficient equipment and appliances, and clean medium-duty and heavy-duty hybrid fleets.
- *Title IV.* Subtitle D would create a Climate Change Technology Board (CCTB) that would use auction-generated funds to accelerate the commercialization and diffusion of low-carbon and zero-carbon technologies and practices.
- *Title V.* EPA would use auction-generated funds to support an efficiency and renewable energy worker transition training program; emission allowances to support transition assistance to carbon-intensive manufacturers; and allowances for transition assistance to owners and operators of fossil fuel-fired electricity generators.
- *Title VI.* EPA would use allowances to reward local electricity and natural gas companies for consumer efficiency programs, and use auction revenues to make grants for public transit improvements and travel demand reductions. DOE would provide incentives to states to update building efficiency codes. EPA would use auction revenues to fund the energy efficiency block grant program in P.L. 110-140.
- *Title VIII.* The Climate Change Technology Board would distribute allowances as incentives to qualified owners of efficient buildings, retailers and distributors of super-efficient equipment, owners and operators of efficient manufacturing facilities, and owners-operators-developers of facilities that harness renewable energy.
- *Title IX.* The Board would use auction proceeds to create incentives for low-carbon and zero-carbon electricity technology. EPA would deposit auction revenues in a fund to support start-up of DOE's Advanced Research Projects Agency (ARPA-E).
- *Title XI.* EPA would distribute allowances as an incentive for hybrid commercial vehicles used in fleet programs. Auction revenues would support the Advanced Technology Vehicles Manufacturing Incentive Program created in P.L. 110-140. EPA would distribute allowances as an incentive to certain cellulosic biofuels producers. EPA would create a regulatory standard that requires transportation fuel providers to reduce emissions per unit of energy content.

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[3] Dear Colleague Letter by Chairman Boxer. May 16, 2008.

- *Title XIII.* Auction revenues would be used to leverage private financing that supports international partnerships to deploy clean energy technologies.

Senate Action on S. 3036

S. 3036 was introduced to replace S. 2191 on May 20, 2008. A cloture motion on the motion to proceed to S. 3036 was presented in the Senate on May 22, 2008. On June 2, 2008, debate over the cloture motion focused on the potential cost of the bill. The cloture motion was approved by vote of 74 to 14. A 30-hour debate on the bill was approved, but all amendments, including the Boxer Amendment, were disallowed until after the 30-hour debate. Floor debate began on June 3, 2008.

On June 2, 2008, the Administration issued a Statement of Administration Policy on S. 3036. In that document, the Administration threatens to veto the bill because it

> ... would raise fuel prices and raise taxes on Americans without accomplishing the important goals the Administration shares... [and]... the bill would raise approximately $6.2 trillion in constant dollars ($11.8 trillion with inflation) through the auction of GHG emission allowances to owners and operators of utilities and factories who would have to purchase allowances to stay in business.[4]

Alternatively, the Administration's document contends that several U.S. programs are underway to address climate change and that additional policies could be adopted that would be sufficient to "... spur investment in new technologies needed to reduce greenhouse gas emissions without unreasonable burdens on consumers and workers."

Proponents of the bill have argued that — in addition to reducing emissions — S. 3036 would be deficit neutral, create new jobs, and spur the economy by investing in new technology.

Tax Incentives Bills

The Congress is considering three bills that would extend or modify selected renewable energy and energy efficiency tax incentives. Title IV of the Alternative Minimum Tax and Extenders Tax Relief Act (S. 2886), which was introduced on April 17, 2008, would extend eight incentives. Title X of the Foreclosure Prevention Act (H.R. 3221), which passed the Senate on April 10, 2008, incorporates eight renewable energy and energy efficiency tax incentives from the Clean Energy Tax Stimulus Act (S. 2821). The Renewable Energy and Energy Conservation Tax Act (H.R. 5351), which passed the House on February 27, 2008, includes 16 incentives

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[4] The White House. Executive Office of the President. Office of Management and Budget. *Statement of Administration Policy on S. 3036 — Lieberman-Warner Climate Security Act.* June 2, 2008. [http://www.whitehouse.gov/omb/legislative/sap/110-2/saps3036-s.pdf]

for renewable energy and energy efficiency. **Table 1** below compares some selected provisions of these three bills. A description of each bill follows Table 1.

Table 1. Tax Incentives Bills Compared

	H.R. 6049	H.R. 5984 H.R. 3221 (S. 2821)	S. 2886
Renewable Energy			
Electricity Production Tax Credit Extension + marine/hydrokinetic energy eligible + electric utilities eligible +3 years for geothermal, biomass, hydro, landfill gas, municipal solid waste	1 year yes yes yes	1 year yes yes no	1 year no no no
Business Solar Tax Credit Extension + electric utilities eligible + offset alternative minimum tax	6 years yes yes	8 years yes no	1 year no no
Residential Solar Tax Credit Extension + lift credit cap + small wind, ground source geothermal + offset alternative minimum tax	6 years yes yes yes	6 years yes no yes	1 year no no no
Clean Renewable Energy Bonds	$2 billion	$400 million	$400 million
Biofuels Production and Distribution	yes	no	no
Energy Efficiency			
New Homes	—	2 years	1 year
Existing Homes	2 years	2 years	2 years
Commercial Buildings Deduction	5 years	1 year	1 year
Appliances	3 years	3 years	2 years
Energy Conservation Bonds	yes	no	no
Transportation	yes	no	no
Revenue Offsets			
Offsets by reducing subsidies for offshore compensation and by delaying tax benefits for the companies operating overseas	yes	no	no

Energy and Tax Extenders Act (H.R. 6049)

On May 14, 2008, the House Committee on Ways and Means approved (25-12) the proposed Energy and Tax Extenders Act of 2008. The nearly $15.4 billion of energy efficiency and renewable energy tax provisions of this bill are very similar to those of H.R. 5351, which the House passed in late February 2008. H.R. 5351 proposed to derive offsets for its energy provisions mainly by reducing oil and gas subsidies, which has been highly controversial and drew a veto threat from the Administration. In contrast, H.R. 6049 would derive offsets for $54.3 billion in energy and other tax provisions from two different sources: a policy change on deferred compensation paid by certain people employed in offshore companies ($24.3 billion) and a delayed phase-in of a 2004 law that would liberalize the foreign tax credit limit for certain taxpayers ($30.0 billion).[5]

H.R. 6049 would extend or re-establish several tax incentives that would support renewable electricity production, biofuels production, transportation efficiency and conservation, buildings efficiency, and equipment efficiency. These new incentives would include $10.1 billion in renewable energy production (electricity and transportation biofuels) tax incentives and $5.3 billion in energy efficiency (plug-in hybrid vehicles and buildings/equipment) tax incentives. The renewable energy incentives would include $7.0 billion for the renewable energy electricity production tax credit (PTC), $1.4 billion for business solar (and fuel cell) tax credits, $666 million for residential solar tax credits, and $538 million for clean renewable energy (tax credit) bonds.[6] (For more about the background and debate on the renewable energy incentives, CRS Report RL34162, *Renewable Energy: Background and Issues for the 110th Congress*.)

Alternative Minimum Tax and Extenders Tax Relief Act (S. 2886)

On April 17, 2008, the Alternative Minimum Tax and Extenders Tax Relief Act of 2008 was introduced. The bill would extend eight tax incentives for renewable energy and energy efficiency. There are no revenue offsets in the bill.

Renewable Energy Incentives. There are four incentives for renewable energy. The business renewable energy electricity production tax credit (PTC) would be extended for one year, through the end of 2009 (§404). For business solar and fuel cell property, the 30% investment tax credit (ITC) would be extended for one year, through the end of 2009 (§406). Also, a 10% credit for microturbines would be extended for one year. For residential solar property, the 30% ITC would be extended for one year, through the end of 2009 (§402). For non-profit entities, an

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[5] Committee on Ways and Means. *H.R. 6049 Energy and Tax Extenders Act of 2008 (Summary).* May 16, 2008. p. 12. [http://waysandmeans.house.gov/media/pdf/110/bill.pdf] More details are available in Joint Committee on Taxation. *Description of the Chairman's Mark of H.R. 6049.* May 14, 2008. p. 171. [http://waysandmeans.house.gov/media/pdf/110/DCM6049.pdf]

[6] The Joint Committee on Taxation scores the estimated costs of the tax provisions at [http://www.house.gov/jct/x-42-08.pdf].

additional $400 million of clean renewable energy bonds (CREBs) would be authorized for issuance before the end of 2009 (§407).

Energy Efficiency Incentives. S. 2886 would also extend four incentives for energy efficiency measures. For homeowners, the 10% ITC for energy efficiency improvements to existing homes would be extended for one year, through the end of 2009 (§403). For contractors and developers of new energy-efficient homes, the ITC would be extended for one year, through the end of 2009 (§405). For commercial buildings, the tax deduction for energy-efficiency improvements would be extended for one year, through the end of 2009 (§408). For manufacturers, the ITC for energy-efficient appliances (dishwashers, clothes washers, and refrigerators) would be extended for two years, through the end of 2009 (§401) Introduced April 17, 2008; referred to Committee on Finance.

Clean Energy Tax Stimulus Act (H.R. 5984/H.R. 3221/S. 2821)

On April 3, 2008, the Clean Energy Tax Stimulus Act of 2008 was introduced, with extensions and modifications of eight tax incentives for renewable energy and energy efficiency. The Joint Committee on Taxation estimates that the incentives would reduce revenue to the U.S. Treasury by about $8.3 billion over 11 years.[7] There are no revenue offsets in the bill.

Renewable Energy Incentives. This bill would extend or modify four renewable energy tax incentives. The business renewable energy electricity production tax credit (PTC) would be extended for one year, through the end of 2009 (§101). Also, the PTC would be expanded to include marine and hydrokinetic power. Further, in cases when a utility is part owner of the facility, the credit would be allowed to reduce the cost of power sold to utility customers. For business solar and fuel cell property, the 30% investment tax credit (ITC) would be extended for eight years, through the end of 2016 (§102). The 0.5 kilowatt cap for fuel cell property would be removed. Utilities would become eligible to claim the ITC. Also, a 10% credit for microturbines would be established. For residential solar property, the 30% ITC would be extended for one year, through the end of 2009 (§103). The $2,000 cap for solar electric property would be removed. A new round of $400 million in clean renewable energy bonds (CREBs) would be authorized for issuance before the end of 2009 (§104).

Energy Efficiency Incentives. S. 2821 would also extend or modify four energy efficiency tax incentives. For homeowners, the 10% ITC for energy efficiency improvements to existing homes would be extended for one year, through the end of 2009 (§201). Pellet stoves would be included as eligible equipment. For contractors and developers of new energy-efficient homes, the ITC would be extended for two years, through the end of 2010 (§202). For commercial buildings, the tax deduction for energy-efficiency improvements would be extended for one year, through the end of 2009 (§203). The maximum deduction would be increased to $2.25 per square foot. Building subsystems would be eligible for a partial

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[7] Joint Committee on Taxation. *Estimated Revenue Effects of the Tax Provisions in H.R. 3221*. April 18, 2008. See [http://www.house.gov/jct/x-33-08.pdf].

deduction of $0.75 per square foot. For manufacturers, the credit for energy-efficient appliances (dishwashers, clothes washers, and refrigerators) would be extended for three years, through the end of 2010 (§204).

Renewable Energy and Energy Conservation Tax Act (H.R. 5351)

On February 12, 2008, the House Committee on Ways and Means approved the proposed Renewable Energy and Energy Conservation Tax Act of 2008.[8] This bill is similar to H.R. 2776,[9] which the House passed during the first session — but it was not sent to the Senate.[10] On February 27, 2007, the House passed H.R. 5351 by a vote of 236-182.[11]

H.R. 5351 would extend or re-establish several tax incentives that would support renewable electricity production, biofuels production, transportation efficiency and conservation, buildings efficiency, and equipment efficiency. These new incentives would include $8.9 billion in renewable energy production (electricity and fuels) tax incentives and $7.8 billion in energy efficiency (transportation and buildings/equipment) tax incentives. The renewable energy incentives would include $6.6 billion for the renewable energy electricity production tax credit (PTC), $634 million for residential solar tax credits, $621 million for business solar (and fuel cell) credits, and $640 million for clean renewable energy (tax credit) bonds.[12] (For more about the background and debate on the renewable energy incentives, see the discussion below, and see CRS Report RL34162, *Renewable Energy: Background and Issues for the 110th Congress.*)

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[8] House Committee on Ways and Means. *H.R. 5351 Renewable Energy and Energy Conservation Tax Act of 2008.* February 25, 2008. This document has a summary and cost estimate for each provisions of the bill. [http://waysandmeans.house.gov/media/pdf/110/februarybillsummary.pdf].

[9] The Joint Committee on Taxation published a description of the provisions in H.R. 2776. It is available at [http://www.house.gov/jct/x-35-07.pdf].

[10] In the engrossment of H.R. 3221, the adopted rule (H.Res 615) provided that the text of H.R. 2776, as passed (221-189) by the House, be added at the end of H.R. 3221as Division B, and H.R. 2776 was tabled. After informal House-Senate negotiations over the House-passed bill (H.R. 3221) and the Senate-passed bill (Senate amendment to H.R. 6), the House passed (235-181) a substitute amendment to the Senate amendment to H.R. 6. The House substitute contained virtually all of the tax incentives in H.R. 2776. Senate floor action to adopt the House substitute failed on a cloture vote (53-42). The ensuing Senate amendment (S.Amdt. 3850) did not include the tax incentives. This bill was adopted by both chambers and enacted as P.L. 110-140.

[11] H.Res. 1001 provided the rule that brought the bill to the floor.

[12] The Joint Committee on Taxation scores the estimated costs of the tax provisions at [http://www.house.gov/jct/x-20-08.pdf]. The Congressional Budget Office provides a summary of the scored costs at [http://www.cbo.gov/ftpdocs/90xx/doc9001/hr5351.pdf].

The bill proposes to offset the cost of those incentives primarily by reducing two subsidies for oil and natural gas production. There would also be some offset derived from a provision to close the "Hummer" tax credit loophole.

House Floor Debate. In the House floor debate,[13] opponents of H.R. 5351 argued that the proposed repeal of oil and natural gas subsidies (§301 and §302) would raise gasoline prices and lead to higher energy costs generally. Further, they contended that such a repeal would cause a decline in oil industry jobs. Also, some opponents argued that the proposed 35% cap on the renewable energy production tax credit would severely impair the ability of the credit to stimulate the development of new wind farms.[14]

Proponents argued that the repeal would focus mainly on the five largest oil companies, which have recently made historical record-breaking profits and, thus, do not need the subsidies. Further, they contended that the subsidies currently favor conventional fuels and that the bill would help to bring support into a more equal balance. Proponents also argued that the incentives would spur the development of greater numbers of "green jobs" and help reduce greenhouse gas emissions.[15] (For more details about the proposed revenue offsets, see the discussion below, and see CRS Report RL33578, *Energy Tax Policy: History and Current Issues.*)

Renewable Electricity Production. The bill proposes four incentives for electricity production: the production tax credit, two solar investment tax credits, and new clean energy (tax credit) bonds.

Renewable Energy Electricity Production Tax Credit (PTC). For business owners, the PTC of two cents per kilowatt-hour for windfarms and other power facilities would be extended for three years, through the end of 2011 (§101).[16] For 2010 and 2011, the credit would be capped at 35% of a project's value. Also, marine/hydrokinetic facilities would become eligible for the credit (§102). Such facilities produce electricity from river currents or from ocean waves, tides, and temperature differences (ocean thermal energy).[17]

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[13] Congressional Record. February 27, 2008. p. H1091-H1131.

[14] The Administration has threatened to veto the bill, stating its opposition to repeal of the oil industry subsidies and to proposals for clean renewable energy (tax credit) bonds and qualified energy conservation bonds. Executive Office of the President. *Statement of Administration Policy on H.R. 5351*. February 26, 2008. 2 p. [http://www.whitehouse.gov/omb/legislative/sap/110-2/saphr5351-r.pdf]

[15] Many of these points were also stated in a letter from the Speaker of the House to the President. Office of the Speaker. *Pelosi, Hoyer, Clyburn and Emanuel Send Letter to White House on House-Passed Energy Legislation.* Press Release. February 28, 2008. 2 p. [http://speaker.house.gov/newsroom/pressreleases?id=0544]

[16] For more background, see CRS Report RL34162, *Renewable Energy Issues for the 110th Congress*, by Fred Sissine.

[17] For more discussion of marine/hydrokinetic energy, see CRS Report RL33883, *Issues Affecting Tidal, Wave, and In-Stream Generation Projects*, by Nic Lane.

Solar Tax Credits. For business property owners, the 30% investment tax credit would be extended for eight years for the installation of solar, geothermal, fuel cell, and microturbine equipment (§127). Further, the credit would be allowed to offset the alternative minimum tax. Also, public utilities would become eligible for the credit.

For home owners, the 30% investment tax credit for residential solar electric, solar hot water, and fuel cell equipment would be extended for six years, through the end of 2014 (§106).[18] Further, the annual cap on the credit would be increased from $2,000 to $4,000. Also, residential wind equipment and ground source heat pumps would become eligible for the credit.

New Clean Renewable Energy (Tax Credit) Bonds. Certain non-tax-paying entities are eligible under current law, through the end of 2008, to be "qualified issuers" of clean renewable energy bonds (CREBs).[19] The bill would authorize an additional $2 billion in authority for CREBs to be issued through end of 2009. Taxpayers holding the CREBs on a credit allowance date would be entitled to a tax credit.[20] The amount of the tax credit would be determined by multiplying the bond's credit rate by the face amount on the holder's bond.

Biofuels Production. For biofuels producers, the bill has two tax incentives.[21] First, a new production tax credit of 50 cents per gallon would be created for cellulosic fuel ethanol (§213). It would be available through the end of 2010. That credit would be available in addition to the existing 51 cents per gallon ethanol credit and the 10 cents per gallon small producer credit. Second, the existing $1.00 per gallon production credit for biodiesel and the 50 cents per gallon credit for small biodiesel producers would be extended for two years, through the end of 2010 (§211). Also, the provision clarifies that the $1.00 per gallon production credit for renewable diesel would be limited to fuel produced only from biomass.[22]

For biofuels distributors, the existing investment tax credit for alternative refueling stations would be extended for two years, through the end of 2010 (§202). Further, the credit value would be increased from 30% (capped at $30,000) to 50% (capped at $50,000). Also, section 212 would clarify that the production incentives

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[18] For a description of the existing solar investment tax incentives, and the debate over their proposed extension, see CRS Report RL34162, *Renewable Energy Issues for the 110th Congress.*

[19] Qualified issuers include state and local governments, American Indian tribes, public power providers (non-profit electric utilities), and cooperative electric companies. For more background about CREBs, see CRS Report RL34162, *Renewable Energy Issues for the 110th Congress.*

[20] For more background, see CRS Report RL34162, *Renewable Energy Issues for the 110th Congress.*

[21] For more information about biofuels incentives, see CRS Report RL33572, *Biofuels Incentives: A Summary of Federal Programs*, by Brent D. Yacobucci.

[22] However, diesel produced by co-processing biomass with petroleum or other feedstocks would be eligible for the 50 cents per gallon tax credit for alternative fuels.

in sections 213, 211, and 202 would be available only for fuels produced in the United States.

Transportation Efficiency and Conservation. For automobile manufacturers, the bill would establish a new tax credit for each qualified plug-in hybrid vehicle placed in service (§201). The base amount of the credit would be $4,000. If the vehicle's battery capacity exceeds five kilowatt-hours (kwh), the credit would be increased by $200 for each additional kwh, up to a maximum of $6,000. Each company that reaches 60,000 plug-in hybrid vehicles in sales would have the credit terminated at the end of the following business quarter.

Employers would be allowed to provide a tax deductible fringe benefit to employees that use a bicycle to commute to work (§221). The benefit would be available to offset bicycle storage cost and other commuting costs.

For businesses, an existing tax benefit (loophole) for fuel-inefficient sport utility vehicles and other heavy vehicles would be eliminated (§203). The tax benefit would be retained for trucks and vans that are designed strictly for business use. Further, the tax benefit would be retained for certain heavy vehicles needed for farming and heavy freight transportation. Also, the tax benefit would be extended to lighter-weight and more fuel-efficient vehicles needed for farming and heavy freight transportation.

Buildings Efficiency. For states, local governments, and tribal governments, a new category of tax-exempt "qualified energy conservation bonds" would be created to support "green" community initiatives that involve energy efficiency, renewable energy, mass transit, and other measures that reduce greenhouse gas emissions (§231).[23] Proceeds from the bonds must be spent within a three-year period. The program's total national bond authority would be capped at $3.6 billion. Five categories of projects would be eligible for bond support. One category would be for reducing energy use in public buildings by 20%. The second category would include research support for cellulosic ethanol, carbon dioxide (CO_2) sequestration, and other technologies to improve energy efficiency in buildings and transportation. The third category would cover public transit (mass commuting) facilities. The fourth category would include demonstration projects for green buildings, biomass conversion to fuel, peak-load power reduction, and CO_2 sequestration. The fifth category would cover public education about energy efficiency.

For home owners, a recently expired investment tax credit for residential energy efficiency equipment and building shell measures would be re-established and extended through the end of 2009 (§232). Also, energy-efficient biomass fuel stoves would become eligible for a tax credit worth up to $300.

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[23] Joint Committee on Taxation, Description of the Tax Provisions in H.R. 2776, p. 44-46. The Committee describes "Qualified Energy Conservation Bonds" as a type of qualified private activity bonds, which permit states and local governments to "act as conduits providing tax-exempt financing for certain private activities." The definition includes exempt facility bonds that can be used to finance certain transportation, utility, educational, and "qualified green building and sustainable design projects."

For commercial building owners, the existing investment tax deduction for the installation of energy efficiency equipment and building shell measures would be extended for five years, through the end of 2013 (§233).

Equipment Efficiency. For manufacturers of energy-efficient appliances, an expired tax credit would be re-established and extended for nearly three years, through the end of 2010 (§234). Depending on the level of efficiency achieved, each energy-efficient dishwasher produced would be eligible for a credit that ranges from $45 to $75. For each clothes washer, the available credit would range from $75 to $250. For each refrigerator, the credit would range from $50 to $200. The total tax benefit that could be claimed by each company would be capped at $75 million.

For electric utilities, the installation of "smart electric meters" would benefit from a shortened depreciation period of five years (§235). The meter must be capable of providing time-of-use data and "net metering" services for home owners and occupants.[24] Also, the device must provide energy use data to the utility company.

Revenue Offsets Debate. Title III of H.R. 5351 proposes $18.0 billion in oil and natural gas revenue offsets to support $16.7 billion in new incentives for renewables (Title I) and efficiency (Title II).[25] The first subsidy is the 6% deduction for domestic oil and natural gas producers (IRS §199). Title V of the bill would repeal that deduction for certain large integrated oil companies. For other companies, it would freeze the deduction at the 6% level. This is a scaled-back version of the proposal in H.R. 2776 that would have repealed the deduction for all companies.[26] The second proposal would restrict oil and gas companies from claiming foreign tax credits by changing the method used to calculate "Foreign Oil and Gas Extraction Income." This is identical to the provision in H.R. 2776.[27] The revenue offset provisions are the most controversial part of the bill.

Debate over the revenue offset provisions in H.R. 5351 directly parallels the House and Senate floor debates over similar proposals for H.R. 6 during the first session. In those debates, opponents argued that the reduction in oil and natural gas incentives would dampen production, cause job losses, and lead to higher prices for gasoline and other fuels. Proponents counter-argued that record profits show that the oil and natural gas incentives were not needed and that the new incentives would help spur the development of "green" jobs.

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[24] Net metering is an arrangement wherein the occupant may generate power on the premises and sell it to the utility company.

[25] H.R. 5351 also includes $1.83 billion for "New York Liberty Zone" tax credits for transportation infrastructure projects proposed in the Administration's FY2009 budget. For more discussion of the revenue offset provisions, see CRS Report RL33578, *Energy Tax Policy: History and Current Issues*, by Salvatore Lazzari.

[26] Joint Committee on Taxation, *Description of the Tax Provisions in H.R. 2776*, p. 62-66.

[27] Joint Committee on Taxation, *Description of the Tax Provisions in H.R. 2776*, p. 67-72.

FY2009 Budget Requests

DOE FY2009 Request

DOE Office of Energy Efficiency and Renewable Energy (EERE). The President's 2008 State of the Union address set out goals to strengthen energy security and confront global climate change, and stated that "... the best way to meet these goals is for America to continue leading the way toward the development of cleaner and more energy-efficient technology."[28] As part of that effort, the Administration proposes to continue its support for the Advanced Energy Initiative (AEI, an element of the American Competitiveness Initiative), which "aims to reduce America's dependence on imported energy sources." The AEI includes hydrogen, biofuels, and solar energy initiatives that are supported by programs in EERE.[29]

According to the FY2009 budget document, the Hydrogen Initiative has a "long-term aim" of developing hydrogen technology that will help the Nation achieve a "cleaner, more secure energy future."[30] Further, current research aims to "enable industry to commercialize a hydrogen infrastructure and fuel cell vehicles by 2020." The Biofuels Initiative seeks to make cellulosic ethanol cost competitive by 2012 using a wide array of regionally available biomass sources. The Solar America Initiative aims to "... accelerate the market competitiveness of photovoltaic systems using several industry-led consortia which are focused on lowering the cost of solar energy through manufacturing and efficiency improvements."[31] Further, the *Budget* states that there is a goal to make solar power "cost-competitive with conventional electricity by 2015."[32]

As **Table 2** shows, DOE's FY2009 request seeks $1,255.4 million for the EERE programs.[33] Compared to the FY2008 appropriation, the FY2009 request would reduce EERE funding by $467.0 million, or 27.1%. Three proposed cuts would comprise most of this reduction. First, the request would eliminate $186.7 million in Congressionally-Directed Assistance. Second, it would reduce Facilities construction spending by $57.3 million.[34] Third, the request would cut $227.2

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[28] The White House. State of the Union 2008. [http://www.whitehouse.gov/news/releases/2008/01/print/20080128-13.html]

[29] U.S. Executive Office of the President, *Budget of the United States Government, Fiscal Year 2007*, Appendix, p. 390. Also see DOE, *FY2007 Congressional Budget Request: Budget Highlights*, p. 41.

[30] U.S. Executive Office of the President, *Budget of the United States Government, Fiscal Year 2009*, Appendix, p. 393.

[31] U.S. Executive Office of the President, *Budget of the United States Government, Fiscal Year 2009*, Appendix, p. 393.

[32] *U.S. Budget*, p. 59.

[33] DOE. *FY2009 Congressional Budget Request*. v. 3. [http://www.cfo.doe.gov/budget/09budget/Content/Volumes/Volume3a.pdf]

[34] Facilities funding for construction tends to be provided in a lump sum. No major (continued...)

million in funding to terminate the Weatherization Assistance Program. At February 2007 hearings on the FY2009 DOE budget request, concerns were raised about DOE's proposed termination of that program.[35]

For renewable energy technologies, **Table 2** shows that, compared to the FY2008 appropriation, the key increases are for Biomass Energy ($26.8 million) and Geothermal Energy ($10.2 million). The key decreases are for Water/Hydrokinetic Power (-$6.9 million) and Solar Energy (-$12.3 million). Overall, funding for renewable energy technologies would increase by $20.7 million (4.6%). For deployment programs, the main increase is for the Asia Pacific Partnership ($7.5 million).[36] Also, the request would terminate the Renewable Energy Production Incentive (-$5.0 million).[37]

For energy efficiency technologies, **Table 2** shows that, compared to the FY2008 appropriation, the main increase is for Buildings ($14.8 million) and the only decrease is for Industrial programs (-$2.3 million). Overall, energy efficiency technologies would increase by $22.7 million (5.6%). For deployment programs, the main increase is for State programs ($5.9 million). Also, the request seeks to terminate the Weatherization Program (-$227.2 million).

Weatherization Program funding has often been a source of tension between Congress and the Administration. In 2001, the Administration launched an initiative to increase DOE Weatherization Program funding by $1.2 billion over 10 years.[38] The DOE request took a big jump for FY2002, and subsequent requests increased steadily, though modestly, through FY2005. For each of those fiscal years, the final appropriation was somewhat lower than the request. In FY2006, both trends reversed. The FY2006 request was well below the FY2005 request, and requests continued to decline annually through FY2008. Also, for FY2006 through FY2008, the final appropriations exceeded the request each year. For FY2009, the DOE request seeks to terminate the Program, citing a higher benefit-cost ratio for

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[34] (...continued)
construction projects would be cancelled as a result of this proposed reduction.

[35] The Senate Committee on Energy and Natural Resources held a hearing on the DOE *FY2009 Budget Request* on February 6, 2008. [http://energy.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=1673]. The House Committee on Energy and Natural Resources held its hearing February 7, 2007. [http://energycommerce.house.gov/membios/schedule.shtml]

[36] *DOE Request*, p. 482-483. The Asia Pacific Partnership (APP) is a multinational undertaking that the federal government supports through several agencies. The Department of State is the lead agency for APP. DOE's request for APP in FY2009 would support new renewable power generating capacity, best manufacturing practices for targeted industries, and best design and construction practices for buildings and efficient appliance standards.

[37] For a brief discussion of the Renewable Energy Production Incentive, see the section on Clean Renewable Energy Bonds in CRS Report RL34162, *Renewable Energy: Background and Issues for the 110th Congress*.

[38] The White House. *National Energy Policy*. Report of the National Energy Policy Development Group. May 2001. p. 2-12. [http://www.whitehouse.gov/energy/National-Energy-Policy.pdf]

technology programs than for the Weatherization Program.[39] A major study of the program's benefits and costs in 1989 was published in 1993. In 2007, DOE launched a plan for a comprehensive review of program benefits and costs based on data collected during program year (PY) 2006.[40]

DOE Office of Electricity Delivery and Energy Reliability (OE). The FY2009 request includes $134.0 million for the Office of Electricity Delivery and Energy Reliability (OE). Compared to the FY2008 appropriation, the FY2009 request would reduce funding by $4.6 million, or 3.3%.

[39] DOE states that "EERE's Energy Efficiency portfolio has historically provided approximately a 20 to 1 benefit to cost ratio. In comparison, Weatherization has a benefit cost ratio of 1.53 to 1." DOE, *FY 2009 Congressional Budget Request*, vol. 3, p. 44.

[40] The 1993 study and the 2007 plan are discussed in DOE. Oak Ridge National Laboratory. *National Evaluation of the Weatherization Assistance Program: Preliminary Evaluation Plan for Program Year 2006.* February 2007. p. 1.

Table 2. Energy Efficiency and Renewable Energy Programs

($ millions)

Program	FY2006	FY2007	FY2008	FY2009 Request	FY2009-FY2008	FY2009-FY2008 Percent
Hydrogen Technologies	153.5	189.5	211.1	146.2	-64.8	-30.7
Biomass & Biorefinery Systems	89.8	196.3	198.2	225.0	26.8	13.5
Solar Energy	81.8	157.0	168.5	156.1	-12.3	-7.3
— Photovoltaics	58.8	138.4	136.7	137.1	0.4	-0.3
Wind Energy	38.3	48.7	49.5	52.5	3.0	6.0
Geothermal Technology	22.8	5.0	19.8	30.0	10.2	51.4
Water Power (Hydro/Ocean)	0.5	0.0	9.9	3.0	-6.9	-69.7
Subtotal, Renew. & Hydrogen	386.6	596.5	657.0	612.8	-44.1	-6.7
Vehicle Technologies	178.4	183.6	213.0	221.1	8.0	3.8
Building Technologies	68.2	103.0	109.0	123.8	14.8	13.5
Industrial Technologies	55.9	55.8	64.4	62.1	-2.3	-3.6
Federal Energy Management	19.0	19.5	19.8	22.0	2.2	11.0
Subtotal, Efficiency R&D	321.4	361.8	406.3	429.0	22.7	5.6
Facilities & Infrastructure	26.1	107.0	76.2	14.0	-62.2	-81.6
Program Management	115.2	110.2	114.9	141.8	27.0	23.5
R&D Subtotal	849.2	1,175.5	1,254.3	1,197.6	-56.6	-4.5
Federal Assistance						
— Weatherization Grants	242.6	204.6	227.2	0.0	-227.2	-100.0
— State Energy Grants	36.1	58.8	44.1	50.0	5.9	13.4
— Renewables Deployment	38.2	18.4	10.9	8.5	-2.4	-22.0
— Cong.-Directed Assistance[b]	—	0.0	186.7	0.0	-186.7	-100.0
— Prior Year Balances	—	—	(0.7)	-0.7	0.0	-0.7
Federal Assistance Subtotal	316.9	281.7	468.1	57.8	-410.4	(87.7)
Total Appropriation, EE & RE	1,166.1	1,457.2	1,722.4	1,255.4	-467.0	-27.1
Office of Electricity Delivery & Energy Reliability (OE)[a]	158.2	134.4	138.6	134.0	-4.6	-3.3

Sources: DOE FY2007 Operating Plan; H.Rept. 110-185; S.Rept. 110-127; Joint Explanatory Statement on the Consolidated Appropriations Act of 2007 (Cong. Record, Dec. 17, 2007, p. 15587 and p. H15940).

a. The Distributed Energy Program was moved from EERE to OE in FY2006.
b. In FY2006, there was $159.0 million in congressionally-directed funds spread over EERE accounts. For FY2008, the House approved (H.Rept. 110-185, part 2) $104.3 million for congressionally-directed assistance to be taken from available funds. The Senate Appropriations Committee recommended $90.3 million in assistance, to be provided from a separate (new) account line.

Other FY2009 Requests

Environmental Protection Agency (EPA). EPA's Climate Protection Programs (CPP) involve energy efficiency and clean energy measures to reduce greenhouse gas emissions from power plants and mobile sources. EPA's FY2009 request for CPP is $98.4 million, which is $10.3 million less than the FY2008 appropriation.[41] **Table 3** shows the differences between the FY2008 appropriation and the FY2009 request.

Table 3. EPA Energy Efficiency Funding

($ millions)

	FY2006 Appn.	FY2007 Appn.	FY2008 Appn.	FY2009 Request	Difference
CPP - Sci. & Tech.	19.7	14.6	18.3	11.4	-6.9
CPP - Env. Prog. & Management	83.7	91.3	90.4	87.0	-3.4
Totals	103.3	105.9	108.7	98.4	-10.3

Source: EPA *FY2009 Budget Request* and *FY2008 Budget Request*.

Department of Agriculture (USDA). The FY2009 budget document states that the Administration's 2007 farm bill proposal "... provides more than $1.6 billion in new renewable energy funding and targets programs to cellulosic ethanol projects."[42] In its FY2009 request document, the USDA states that, "While discretionary funding is not being requested, the Administration's farm bill proposal includes funding for renewable energy/energy efficiency loans and grants, and biomass research and development grants.[43] (For more details, see CRS Report RL34130, *Renewable Energy Policy in the 2007 Farm Bill*.)

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[41] EPA's *FY2009 Budget Request* is at [http://www.epa.gov/ocfo/budget/2009/2009cj.htm].

[42] *FY2009 Budget of the U.S. Government*. Appendix. p. 120.

[43] USDA. *FY2009 Budget Summary and Annual Performance Plan*. February 2008. p. 44. [http://www.obpa.usda.gov/budsum/fy09budsum.pdf]

Food, Conservation, and Energy Act of 2008 ("2008 Farm Bill")

The House and Senate overrode an Administration veto to enact the Food, Conservation, and Energy Act of 2008 (P.L. 110-234, H.R. 2419) on May 22, 2008.

Key Programs Extended, Expanded, and Added

The enacted 2008 "farm bill" expands and extends the provisions in the energy section of the 2002 farm bill, and provides additional funding. The law makes several changes to the programs in the energy title. For example, the Section 9006 program is combined with the Energy Audit and Renewable Energy Development Program under a new "Renewable Energy for America Program." The law also creates new programs, including a Biomass Crop Assistance Program, to provide financial assistance to producers for growing biomass crops and developing conversion facilities; and the Agricultural Bioenergy Feedstock and Energy Efficiency Research and Extension Initiative, to provide competitive grants projects that focus on farm-sited biomass crop research and extension. The latter initiative is under the law's research title (Title VII) and includes other bioenergy research programs. The enacted law continues programs for federal purchase of biobased products under the Biobased Markets Program. Mandatory spending for the law's agriculture-based energy programs is projected at $0.6 billion for the period from FY2008 through FY2012 and at $0.9 billion for the entire period from FY2008 through FY2017. (For more details, see CRS Report RL33934, *Farm Bill Legislative Action in the 110th Congress*.)

Tax Incentives for Biofuels Extended

Title XV lowers the ethanol production tax credit from 51 cents to 45 cents per gallon, starting in the first year after which annual ethanol production reaches 7.5 billion gallons. The cellulosic biofuel producer credit is set at $1.01 per gallon, with special provisions for small cellulosic ethanol producers. Also, the ethanol import tariff is extended. (For more details, see CRS Report RL33934, *Farm Bill Legislative Action in the 110th Congress*.)

Enacted Funding-Related Bills

FY2008 DOE Appropriations (P.L. 110-161)

DOE Budget Request. The Administration's Advanced Energy Initiative (AEI, part of the American Competitiveness Initiative) "aims to reduce America's dependence on imported energy sources." The AEI includes hydrogen, biofuels, and solar energy initiatives that would be supported by programs in DOE's Office of Energy Efficiency and Renewable Energy (EERE). The Hydrogen Initiative aims to "facilitate a decision by industry to commercialize hydrogen infrastructure and fuel

cell vehicles by 2015."[44] The Biofuels Initiative seeks to develop transportation fuels, such as cellulosic ethanol. The Solar America Initiative's goals are to cut the cost of photovoltaics (PV) technology, increase its commercial use, and displace natural gas use for electric power generation. The President's 2007 State of the Union address set out a goal to reduce gasoline use by 20% and to increase the production of "alternative" fuels, including cellulosic ethanol, to 35 billion gallons by 2017. To support the AEI and those fuels goals, the FY2008 EERE budget request proposed significant increases for the Biofuels, Hydrogen, and Solar programs. DOE's FY2008 request seeks $1,236.2 million for the EERE programs. At hearings on the FY2008 DOE budget request, concerns were raised about DOE's proposed termination of the Geothermal and Hydropower programs.[45]

House Action (H.R. 2641). The House Appropriations Committee report (H.Rept. 110-185) includes funding for DOE's Energy Efficiency and Renewable Energy (EERE) Program. For FY2008, the Committee recommended $1,873.8 million for EERE, which is $637.6 million, or 52%, more than the DOE request.[46] The Hydrogen R&D Program would be cut by $18.4 million. Key increases for renewable energy R&D include Biomass/Biofuels ($70.7 million), Solar Energy ($51.7 million), Geothermal Energy ($44.3 million), and Hydro/Ocean Energy ($22.0 million). Major increases for energy efficiency R&D include Buildings ($60.0 million) and Vehicles ($59.3 million). The Committee also recommended large increases for Facilities Construction ($188.7 million) and Weatherization grants ($97.0 million).[47]

Senate Action (S. 1751). The Senate Appropriations Committee recommended $1,715.6 million for EERE, which is $158.3 million, or 8%, less than the House Appropriations Committee recommended. Compared with the House Appropriations Committee recommendations, the main difference is a decrease of $195.7 million (zero funding) for Facilities Construction. Additional decreases for renewable energy R&D include Hydro/Ocean (-$12.0 million), Solar Energy (-$20.0 million), and Geothermal Energy (-$19.3 million). Also, International Renewables would be terminated (-$10.0 million). Under energy efficiency R&D programs, Hydrogen would get an increase of $33.4 million.

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[44] U.S. Executive Office of the President, *Budget of the United States Government, Fiscal Year 2007*, Appendix, p. 390. Also see DOE, *FY2007 Congressional Budget Request: Budget Highlights*, p. 41.

[45] Secretary Bodman's Senate testimony is available at [http://energy.senate.gov/public/_files/BodmanTestimony.pdf].

[46] The DOE FY2008 budget document is available at [http://www.mbe.doe.gov/budget/08budget/Content/Volumes/Vol_3_ES_New.pdf].

[47] The National Renewable Energy Laboratory (NREL) is the premier national lab for solar energy R&D and has major programs in hydrogen, biomass/biofuels, wind energy, and vehicles. The large increase recommended for the Facilities Construction program includes $8 million for solar R&D equipment, $13 million for infrastructure to test plug-in hybrid vehicles, $77 million for NREL's distributed energy systems integration facility, and $91 million to design and build a facility for biological and chemical research.

Enacted Law (P.L. 110-161, H.R. 2764). Title III of Division C in the Consolidated Appropriations Act for 2008 provides $1,722.4 million for FY2008,[48] which is $486.2 million more than the request and $248.1 million more than the FY2007 appropriation.[49] Relative to FY2007, the FY2008 appropriation (adjusted for the rescission) provides key increases of $25.0 million for Vehicles, $22.7 for Weatherization, $17.5 million for Hydrogen, $14.8 million for Geothermal, $9.9 million for Water (Marine and Hydrokinetic) technologies, and $9.1 million for Solar. The FY2008 appropriation also includes $30.9 million less for Facilities. This reduction does not affect the level of funding for facilities operations. Instead, it reflects a reduced level of spending on construction of new buildings. The main cuts in FY2008 are $9.5 million less for International Renewables (which terminates the program) and $5.4 million less for State Grants.

(For more details, see CRS Report RL34009, *Energy and Water Development: FY2008 Appropriations*, coordinated by Carl E. Behrens.)

Other FY2008 Appropriations Bills

Division J of P.L. 110-161 contains the Department of State, Foreign Operations and Related Programs Appropriations Act of 2008 (H.R. 2764). Title II directs the Export-Import Bank (ExIm Bank) to channel at least 10% of its resources to renewable energy and "environmentally beneficial" products and services.[50] Also, under Development Assistance in Title III, the law directs the U.S. Agency for International Development (USAID) to provide $195 million for programs that "promote energy efficiency and renewable and cleaner technology."[51]

Division A of P.L. 110-161 contains the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act of 2008. The law provides $36 million for U.S. Department of Agriculture's (USDA's) Renewable Energy Program. Of the $36 million, $16 million would be used to provide direct grants and $20 million would be used to support $207 million in loan guarantees.[52]

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[48] Prior to the enactment of P.L. 110-161, three continuing resolutions had been enacted for FY2008 appropriation. P.L. 110-92 (H.J.Res. 52) extended appropriations through November 16, 2007; P.L. 110-116 (H.R. 3222, Division B) extended appropriations through December 14, 2007; and P.L. 110-137 (H.J.Res. 69) extended appropriations through December 21, 2007.

[49] *Congressional Record*, December 17, 2007 (Book II). p. H15913, H15914, and H15940. The 0.91% DOE rescission is described in Book I, Section 312, on p. H15587.

[50] Given the $68.0 million appropriation for ExIm Bank, the 10% minimum requirement would amount to $6.8 million or more. *Congressional Record*, December 17, 2007 (Book III). p. H16437.

[51] *Congressional Record*, December 17, 2007 (Book III). p. H16438. The law follows the Senate recommendation. The House bill called for $501 million to be available to promote "clean energy" and protect biodiversity.

[52] *Congressional Record*, December 17, 2007 (Book II). p. H15763. The House bill (H.R. 3161) proposed $46 million, including support for $350 million in loan guarantees. The (continued...)

Several appropriations bills included a provision that would require all new light bulbs purchased by federal agencies to have either EPA "Energy Star" or Federal Energy Management Program (FEMP) energy efficiency designation.

Energy Reserve Fund in the Budget Resolution

House Action. On January 18, 2007, the House passed the CLEAN Energy Act (H.R. 6) by a vote of 264-163. The bill proposes to use revenue from certain oil and natural gas policy revisions to create an Energy Efficiency and Renewables Reserve aimed at reducing foreign oil dependence and serving other purposes.[53] The actual uses of the reserve would be determined at a later date by legislation that would establish uses for the financial resources of the reserve.

In House floor debate on H.R. 6, opponents argued that the reduction in oil and natural gas incentives would dampen production, cause job losses, and lead to higher prices for gasoline and other fuels. Opponents also complained that the proposal for the reserve does not identify specific policies and programs that would receive funding. Proponents of the bill counter-argued that record profits show that the oil and natural gas incentives were not needed. They also contended that the reserve could be used to support a variety of R&D, deployment, and tax incentives for renewable fuels, and that the specifics would evolve as legislative proposals come forth for using resources from the reserve.[54]

On March 28, the House passed the concurrent resolution on the budget for FY2007 and FY2008 (H.Con.Res. 99) by a vote of 216-210. The resolution provides additional funding for energy (Function 270) above the President's request that "could be used for research, development, and deployment of renewable and alternative energy." Section 207 would create a deficit-neutral reserve fund that fulfills the purposes of H.R. 6 to "facilitate the development of conservation and energy efficiency technologies, clean domestic renewable energy resources, and alternative fuels that will reduce our reliance on foreign oil."

Senate Action. On March 23, the Senate passed S.Con.Res. 21, its version of the concurrent resolution on the budget for FY2007. In parallel to the House resolution, Section 307 of S.Con.Res. 21 would create a deficit-neutral reserve fund that could be used for renewable energy, energy efficiency, and "responsible development" of oil and natural gas. Additionally, Section 332 would create a deficit-neutral reserve fund for extension through 2015 of certain energy tax incentives, including the renewable energy electricity production tax credit (PTC),

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[52] (...continued)
Senate bill (S. 1859) proposed $28.5 million. For more details on renewable energy in agriculture, see CRS Report RL34130, *Renewable Energy Policy in the 2007 Farm Bill*, by Randy Schnepf and Tom Capehart.

[53] For more details about the reserve, see CRS Report RS22571, *The Strategic Energy Efficiency and Renewables Reserve in the CLEAN Energy Act of 2007 (H.R. 6)*, by Fred Sissine.

[54] *Congressional Record*, January 18, 2007, pp. H688 through H729.

Clean Renewable Energy Bonds, and provisions for energy efficient buildings, products, and power plants. Further, Section 338 would create a deficit-neutral reserve fund for manufacturing initiatives that could include tax and R&D measures that support alternative fuels, automotive technologies, energy technologies, and the infrastructure to support the technologies. The House passed its version of S.Con.Res. 21 on May 8, 2007.

Conference Report. Section 308 of the adopted report establishes a deficit-neutral reserve fund for energy legislation. Section 308(a) applies only to the Senate, with provisions similar to those in sections 307 and 332 of the Senate version. Reserve fund uses will be allowed that "reduce our Nation's dependence on foreign sources of energy, expand production and use of clean alternative fuels and alternative fuel vehicles, promote renewable energy development, improve electricity transmission, encourage responsible development of domestic oil and natural gas resources, or reward conservation and efficiency...." Further, such legislation may include "tax legislation such as a proposal to extend energy tax incentives like the production tax credit for electricity produced from renewable resources, the Clean Renewable Energy Bond program, or provisions to encourage energy efficient buildings, products, and power plants."

Section 308(b) applies only to the House, with language similar to Section 207 of the House version. Reserve fund uses would be permitted for legislative actions that "fulfill the purposes of section 301(a) of H.R. 6, the Clean Energy Act of 2007...."

FY2007 Appropriations (P.L. 110-5)

The Department of Energy (DOE), Environmental Protection Agency (EPA), and Department of Agriculture (USDA) receive annual appropriations for energy efficiency and renewable energy programs.[55] In the 109th Congress, the appropriations process for FY2007 was not completed. A continuing resolution (P.L. 109-383, H.J.Res. 102) provided funding through February 15, 2007.

In the 110th Congress, H.J.Res. 20 was introduced to continue FY2007 appropriations through the end of the fiscal year. It was enacted on February 15 as P.L. 110-5. The law sets funding for DOE's Energy Efficiency and Renewable Energy (EERE) Programs at $1.47 billion, about $308 million above the FY2006 appropriation. Also, the law eliminates earmarks and sets conditions on the EPACT Title 17 loan guarantee program, fixing a cap at $4 billion, prohibiting awards until final regulations are issued, and requiring annual program evaluations by an independent auditor.

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[55] Several other agencies receive less regular appropriations for energy efficiency or renewable energy projects and activities. These agencies have included Department of State, Department of Defense (DOD), Department of Housing and Urban Development (HUD), Department of Transportation, and Architect of the Capitol.

DOE's FY2007 operating plan was transmitted to the House and Senate appropriation committees on March 16, 2007. It provides the detailed breakdown of funding for EERE programs in FY2007.

H.R. 1591, the Emergency Supplemental Appropriations Bill, would have amended the FY2007 appropriations provided in P.L. 110-5 and DOE's FY2007 Operating Plan. The total amount appropriated by P.L. 110-5 would have remained unchanged. However, the bill would have provided $22.8 million for EERE's Geothermal Energy Program, an increase of $17.8 million over the $5.0 million provided in DOE's Operating Plan. Also, the bill would have provided $229.5 million for the Weatherization Grants Program, an increase of $25.0 million over the $204.5 million provided in DOE's Operating Plan. However, the President vetoed the bill.

Table 4. Action on Energy Efficiency and Renewable Energy Legislation, 110th Congress

Bill	Category	Action	Date
Conference Action			
H.R. 2419	Food, Conservation, and Energy Act ("2008 Farm Bill")	House and Senate override veto	5/22/2008
S. 2739	Aluminum Energy Conservation Authorization	Enacted	5/8/2008
H.R. 2082	Intelligence Authorization	House failed to override veto	3/11/2008
H.R. 6	Omnibus Energy Bill, Senate substitute to House-passed bill	Senate cloture failed	12/13/2007
H.R. 6 (H.Res. 846)	Omnibus Energy Bill (House amendments to Senate amendments)	Senate cloture failed	12/6/2007
		House passed	12/5/2007
H.R. 1585	Defense Authorization	House agreed to Conference Report	12/12/2007
H.R. 3043	Labor, HHS, Education Appropriations	House failed to override veto	11/15/2007
H.R. 3074	Transportation, HUD, and Related Agencies Appropriations	House agreed to conference report	11/14/2007
H.R. 2272	R&D/Competition (ARPA-E)	President Signed; P.L. 110-69	8/9/2007
S.Con.Res. 21	Budget Resolution	House and Senate Agreed to Conference Report	5/17/2007
H.R. 1591	Supplemental Appropriations	President Vetoed	5/1/2007

House Action			
H.R. 3021	Green Schools	Passed House	6/4/2008
H.R. 6049	Tax Incentives for Renewables and Energy Efficiency	Passed House	5/20/2008
H.Res. 1117	Renewable Energy/Energy Efficiency R&D	Passed House	4/22/2008
H.Con.Res. 312	Budget Resolution	Passed House	3/13/2008
H.R. 5351	Renewable Energy Tax Act	Passed House	2/27/2008
H.R. 4137	Green Colleges	Passed House	2/7/2008
H.R. 4986	Defense Authorization	P.L. 110-181	1/28/2008
H.R. 2764	State - Foreign Ops. Appropriations	P.L. 110-161	12/26/2007
H.R. 3776	Energy Storage Technology	Passed House	10/22/2007
H.R. 3775	Industrial Energy Efficiency R&D	Passed House	10/22/2007
H.Res. 651	U.S.-Brazil Biofuels Cooperation	Passed House	10/9/2007
H.Con.Res. 25	Renewable Energy Policy	Reported	9/24/2007
H.R. 3221	Omnibus Energy Bill (+ H.R. 2776)	Passed House	8/4/2007
H.R. 2776	Renewable Energy Tax Incentives	House Approved	8/4/2007
H.R. 3238	Renewable Fuels/Carbon Storage	Reported	8/3/2007
H.R. 3161	Agriculture Appropriations	Passed House	8/2/2007
H.R. 3239	Plug-In Hybrid Electric Vehicles	Reported	7/31/2007
H.R. 2798	Clean Energy Exports	Passed House	7/23/2007
H.R. 2641/ S. 1751	Energy Appropriations Bill, FY2008	Passed House	7/17/2007
		Senate Reported	7/9/2007
H.R. 632	Hydrogen Energy Prize	Passed House	6/6/2007
H.R. 1716	Buildings	Passed House	6/6/2007
H.R. 798	Solar Power in DOE Hdqtrs. Bldg.	Ordered Reported	6/6/2007
H.R. 1332	Small Business Lending	Passed House	4/25/2007
H.Res. 202	New Climate Committee Established	Passed House	3/8/2007
H.J.Res. 20	FY2007 Appropriations	P.L. 110-5	2/15/2007
H.R. 798	DOE Solar Project	Passed House	2/12/2007
H.R. 547	Biofuels/Hydrogen	Passed House	2/8/2007
H.R. 6 (House)	CLEAN Energy Act	Passed House	1/18/2007
Senate Action			
S. 3036	Climate Change Cap & Trade	Brought to Floor	6/2/2008
H.R. 3221 (S. 2821)	Renewable Energy Tax Credits Provision of Housing Bill	Passed Senate	4/10/2008
S. 2739	Authorization	Passed Senate	4/10/2008
H.R. 4986	Defense Authorization	Passed Senate	1/22/2008
H.R. 2764	State - Foreign Ops. Appropriations	P.L. 110-161	12/26/2007
S. 2338	FHA Modernization Act	Passed Senate	12/14/2007
H.R. 798	Solar Power in DOE Hdqtrs. Bldg.	Reported	11/7/2007

S. 2242	Tax Incentives for Conservation and Alternative Sources	Reported	10/25/2007
H.R. 1585	Defense Authorization	Passed Senate	10/1/2007
S. 1543	Geothermal Energy	Hearing Held	9/26/2007
S. 838	U.S.-Israel Energy Cooperation	Reported	9/17/2007
H.R. 1126	Steel/Metals Industry	Reported	9/17/2007
H.R. 85	Technology Transfer Grants	Reported	9/17/2007
S. 2017	Energy Efficiency for Lighting	Hearing Held	9/12/2007
H.R. 2642	Lighting	Passed Senate	9/6/2007
S. 1617	Plug-in Electric Drive Vehicles	Ordered Reported	8/1/2007
S. 280	Climate Change	Hearing Held	7/24/2007
H.R. 6 (Senate)	Omnibus Energy Bill	Passed Senate	6/21/2007
S. 506	Green Bldgs. in the Federal Gov't.	Ordered Reported	6/6/2007
S. 357	Fuel Economy	Ordered Reported	5/8/2007
S. 875	Fuel Efficiency, Biofuels	Hearing Held	5/8/2007
S. 1321	Efficiency, Biofuels, CO_2	Reported	5/7/2007
S. 992	Energy Efficiency in Public Bldgs.	Reported	5/3/2007
S. 193	International Cooperation	Reported	4/12/2007
S.Res. 30	Climate Change	Reported	3/29/2007

Table 5. Energy Efficiency and Renewable Energy Bills by Topic, 110th Congress

Topic and Bill Numbers
I. Policy and Issue Areas
Omnibus Energy Bills. H.R. 6, H.R. 3221
Appropriations. H.J.Res. 20, H.R. 6, H.R. 1591, H.R. 2641/S. 1751, H.R. 2642/S. 1645, H.R. 2643/S. 1696, H.R. 2764, H.R. 2771/S. 1686, H.R. 3043/S. 1710, H.R. 3074/S. 1789, H.R. 3161/S. 1859, S. 818
Authorizations. H.R. 121/S. 506, H.R. 1126, H.R. 1551/S. 919, H.R. 1585/S. 1547, H.R. 2036, H.R. 2154, H.R. 2420, H.R. 3945, H.R. 4773, H.R. 4986, H.R. 5401, S. 298, S. 696, S. 761, S. 987, S. 1115, S. 1321, S. 1419, S. 1547, S. 154, S. 2483, S. 2739, S. 2925
Budget. H.Res. 6, H.R. 6, H.Con.Res. 99/S.Con.Res. 21, H.Con.Res. 312/S.Con.Res. 70
Research and Development. H.Res. 1117, H.R. 80, H.R. 364, H.R. 547, H.R. 931, H.R. 1133, H.R. 1259, H.R. 1920/S. 1151, H.R. 2036, H.R. 2079, H.R. 2339, H.R. 2428, H.R. 2656, H.R. 2773/H.R. 2763, H.R. 2641, H.R. 2881, H.R. 3274, H.R. 3775, H.R. 3776, H.R. 3878, H.R. 5917, H.R. 6155, S. 167/H.R. 395, S. 309, S. 339/H.R. 670, S. 426, S. 696, S. 701, S. 761, S. 987, S. 1020, S. 1115, S. 1238, S. 1321, S. 1419, S. 2307, S. 2925, S. 2940
Grants. H.R. 84, H.R. 85, H.R. 182, H.R. 570/S. 331, H.R. 589, H.R. 1133, H.R. 1259, H.R. 1920/S. 1151, H.R. 1300, H.R. 1451, H.R. 1591, H.R. 1600, H.R. 2079, H.R. 2154, H.R. 2428, H.R. 2447, H.R. 2536, H.R. 2656, H.R. 2890, H.R. 2984, H.R. 3021, H.R. 3031, H.R. 3044, H.R. 3072/S. 1797, H.R. 3197, H.R. 3236, H.R. 3239, H.R. 3246, H.R. 3274, H.R. 3637/S. 2444, S. 167/H.R. 395, H.R. 3775, H.R. 3945, H.R. 4137, H.R. 4773, H.R. 5161, H.R. 5401, H.R. 5437, H.R. 5819, H.R. 5867, H.R. 6052, H.R. 6124, H.R. 6155, S. 280/H.R. 620,, S. 298, S. 317, S. 838/H.R. 1838, S. 859, S. 1115, S. 1242, S. 1321, S. 1419, S. 1562, S. 2179, S. 2302, S. 2306, S. 2307, S. 2483, S. 2546, S. 2616, S. 2739

Loans/Loan Guarantees/Financing. H.J.Res. 20, H.R. 80, H.R. 1215, H.R. 1300, H.R. 1332, H.R. 2036, H.R. 2054/S. 1154, H.R. 2154, H.R. 2218, H.R. 2441, H.R. 2656, H.R. 2776, H.R. 2838, H.R. 3031, H.R. 3044, H.R. 3236, H.R. 3239, H.R. 5437, S. 317, S. 672, S. 701, S. 1115, S. 1242, S. 1321, S. 1419, S. 1491, S. 1508, S. 1656, S. 1657, S. 2302, S. 2349, S. 2730, S. 2734, S. 2958
Energy Efficiency Performance Standard. S. 309, S. 1554
Low Carbon Fuel Standard. H.R. 2215, S. 1324
Renewable Fuel Standard. H.R. 6, H.R. 349, H.R. 635, H.R. 517, H.R. 791, H.R. 2037, H.R. 2178, H.R. 3781, H.R. 4306, H.R. 5911, H.R. 5964, H.R. 6136, S. 23, S. 309, S. 386, S. 987, S. 1158, S. 1297, S. 1321, S. 1358, S. 1616/H.R. 3781, S. 2202, S. 2302
Renewable Portfolio Standard/Tradable Credits. H.R. 6, H.R. 823, H.R. 969, H.R. 1133, H.R. 1590, H.R. 1945, H.R. 2950, S. 1567, S. 309, S. 1554, S. 1602, S. 2444
Tax Incentive for Investment. H.R. 76, H.R. 86, H.R. 345, H.R. 550/S. 590, H.R. 589, H.R. 604, H.R. 765, H.R. 778, H.R. 1133, H.R. 1331, H.R. 1451, H.R. 1500, H.R. 1618, H.R. 1821, H.R. 1888, H.R. 1965, H.R. 1977, H.R. 2039, H.R. 2137, H.R. 2261, H.R. 2372, H.R. 2652, H.R. 2776, H.R. 2966, H.R. 3221, H.R. 3807, H.R. 3823, H.R. 4086, H.R. 4297, H.R. 4612, H.R. 5231, H.R. 5373, H.R. 5437, H.R. 5597, H.R. 6049, H.R. 6124, S. 12, S. 23, S. 339, S. 539, S. 673/H.R. 1772, S. 701, S. 1207, S. 1291, S. 1370, S. 1407, S. 1601, S. 1617, S. 2129, S. 2242, S. 2314, S. 2642, S. 2821/H.R. 5984, S. 2886, S. 3025
Tax Incentive for Energy Production. H.R. 197, H.R. 517, H.R. 683, H.R. 793, H.R. 794, H.R. 1133, H.R. 1945, H.R. 1954, H.R. 2038/S. 1154, H.R. 2261, H.R. 2361, H.R. 2776, H.R. 3072/S. 1797, H.R. 3221, H.R. 5351, H.R. 5437, H.R. 5713, H.R. 5746, H.R. 5911, H.R. 5986, H.R. 6049, H.R. 6133, S. 411/H.R. 1924, S. 425, S. 701, S. 1291, S. 1370, S. 1508, S. 1554, S. 1601, S. 2242, S. 2821/H.R. 5984, S. 2886
Tax Incentive for Fuel Use. H.R. 604, H.R. 805, H.R. 825, H.R. 927, S. 23, S. 162, S. 167/H.R. 395, H.R. 2256, H.R. 2505, H.R. 2741, H.R. 4306, H.R. 5351, H.R. 5713, H.R. 6049, H.R. 6134, S. 701, S. 872, S. 1370, S. 2129
Tax Incentive for Fuel Reduction. H.R. 139/S. 894, H.R. 1385/S. 822, H.R. 1500, H.R. 2459, H.R. 3823, H.R. 6000, S. 1619
Goals/Plans/Studies/Impact Information. H.R. 121/S. 506, H.R. 157, H.R. 589, H.R. 817, H.R. 1300, H.R. 1590, H.R. 2036, H.R. 2261, S. 129, S. 280/H.R. 620, S. 339/H.R. 670, H.R. 2171/H.R. 2196, H.R. 2426, , H.R. 3239, H.R. 5401, H.R. 5402, H.R. 6134, S. 992, S. 1115, S. 1419, S. 1600, S. 1828, S. 2302, S. 2349, S. 2958
Environment/Climate Change. H.Con.Res. 96, H.Res. 202, H.Res. 1117, H.R. 620, H.R. 823, H.R. 1126, H.R. 1590, H.R. 1728/S. 1389, H.R. 2144, H.R. 2215, H.R. 2337, H.R. 2420, H.R. 2701, H.R. 2764, H.R. 3238, H.R. 3274, H.R. 4226, H.R. 5452, H.R. 5560, H.R. 5656, H.R. 5867, H.R. 6125, H.R. 6171, H.R. 6186, S.Res. 30/H.Con.Res. 104, S. 6, S. 280/H.R. 620, S. 309, S. 317, S. 357, S. 485, S. 1073, S. 1324, S. 1411, S. 1766, S. 2149, S. 2155, S. 2191, S. 2555, S. 2806, S. 3036
II. Sectors
Buildings. H.R. 84, H.R. 121/S. 506, H.R. 165, H.R. 345, H.R. 1133, H.R. 1385/S. 822, H.R. 1259, H.R. 1451, H.R. 1591, H.R. 1716, H.R. 1768, H.R. 1888, H.R. 1945, H.R. 2154, H.R. 2389, H.R. 2536, H.R. 2641, H.R. 2701, H.R. 2776, H.R. 2947, H.R. 2950, H.R. 3021, H.R. 3031, H.R. 3524, H.R. 4086, H.R. 4126, H.R. 4137, H.R. 4297, H.R. 5351, H.R. 5401, H.R. 5597, H.R. 5867, H.R. 6078, H.R. 6171, S. 280/H.R. 620, S. 317, S. 539, S. 701, S. 1115, S. 1165, S. 1207, S. 1321, S. 1407, S. 1419, H.R. 2528/S. 1434, S. 1657, S. 2191, S. 2338, S. 2734, S. 2821/H.R. 5984
Defense/Security. H.R. 559, H.R. 1300, H.R. 1585/S. 1547, H.R. 1591, H.R. 2354/S. 133, H.R. 3207, H.R. 6149, S. 6, S. 23, S. 339/H.R. 670, S. 1547, S.1548, S. 1602, S. 2787
Education/Job Training. H.R. 1716, H.R. 1728/S. 1389, H.R. 2428, H.R. 2441, H.R. 2496, H.R. 2847, H.R. 2857, H.R. 3031, H.R. 3239, H.R. 3637/S. 2444, H.R. 3945, H.R. 4137, H.R. 5401, H.R. 5402, H.R. 6186, S. 2191, S. 2302, S. 2483, S. 2616, S. 2739

Federal Lands/Energy Management. H.R. 277, H.R. 589, H.R. 792, H.R. 798, H.R. 823, H.R. 1133, H.R. 1300, H.R. 1500, H.R. 1705, H.R. 2337, H.R. 2752, H.R. 2947, H.R. 798, H.R. 3248, H.R. 3989, H.R. 5805, H.R. 5860, H.R. 6052, H.R. 6171, S.Res. 577, S. 146, S. 309, S. 992, S. 1000, S. 1059, S. 1072, S. 1115, S. 1165, S. 1419, S. 1637, S. 2306
Farms/American Indians. H.Con.Res. 25/ S.Con.Res. 3, H.R. 80, H.R. 872, H.R. 1551/S. 919, H.R. 1596, S. 541, S. 673/H.R. 1772, H.R. 1766, H.R. 1954, H.R. 2038/S. 1154, H.R. 2144, H.R. 2154, H.R. 2218, H.R. 2261, H.R. 2419/S. 2302, H.R. 2656, H.R. 3044, H.R. 6124, S. 36, S. 828, S. 1403, S. 1424
Industry. H.R. 1126, H.R. 1920/S. 1151, H.R. 3239, H.R. 3775, S. 317, S. 1115, S. 1419, S. 2307, S. 2821/H.R. 5984
International/Trade. H.Res. 12, H.Res. 651, H.R. 196, H.R. 1186, H.R. 1838, H.R. 2229, H.R. 2420, H.R. 2764, H.R. 2798, H.R. 3274, H.R. 5529, H.R. 5911, S.Res. 30/H.Con.Res. 104, S. 193, S. 309, S. 426, S. 838/H.R. 1838, S. 1007, S. 1106
III. Energy Efficiency Measures and Technologies
Distributed Generation/Net Metering/Electric Power. H.R. 550/S. 590, H.R. 589, H.R. 729, H.R. 805, H.R. 1133, H.R. 1451, H.R. 1590, H.R. 1705, H.R. 1945, H.R. 2144, H.R. 2171/H.R. 2196, H.R. 2305, H.R. 2555, H.R. 2774, H.R. 3776, H.R. 4059, S. 309, S. 317, S. 992, S. 1016/H.R. 2848, S. 1321, S. 1370, S. 1508, S. 2079
Energy Audits. H.R. 1551/S. 919, S. 280/H.R. 620, H.R. 2528/S. 1434
Equipment/Lighting/Appliances. H.Con.Res. 153, H.R. 872, H.R. 1547, H.R. 1585/S. 1547, H.R. 1705, H.R. 2082, H.R. 2751, H.R. 3534, H.R. 3593, H.R. 3807, H.R. 3823, H.R. 4072, S. 129, S. 992, S. 1101/H.R. 2083, H.R. 2137, H.R. 2389, H.R. 3657, H.R. 5232, H.R. 5351, H.R. 5373, S. 1115, S. 1321, S. 1419, S. 1562, S. 1525, S. 1526, S. 1527, S. 2017, S. 2191, S. 2821/H.R. 5984
Fuel Economy. H.Con.Res. 153, H.R. 6, H.R. 570/S. 331, H.R. 656, H.R. 1133, H.R. 1500, H.R. 1945, H.R. 2296, H.R. 2454, H.R. 2496, H.R. 2513, H.R. 2641, H.R. 2927, H.R. 2950, H.R. 3059, H.R. 5860, H.R. 6000, S. 183, S. 298, S. 309, S. 339/H.R. 670, S. 357, S. 767/H.R. 1506, S. 875, S. 1118, S. 1076/H.R. 1356, S. 1554, S. 1602, S. 1619
Electric/Hybrid Vehicles. H.Con.Res. 153, H.R. 765, H.R. 2079, H.R. 2112, H.R. 2557, H.R. 2776, H.R. 2966, H.R. 3226, H.R. 3239, H.R. 3776, H.R. 5351, H.R. 5437, S. 1055/H.R. 1915, S. 1617, S. 3025
Transportation. H.Con.Res. 153, H.R. 139/S. 894, H.R. 157, H.R. 498, H.R. 589, H.R. 1215, H.R. 1300, H.R. 1331, H.R. 1590, H.R. 1618, H.R. 1945, H.R. 2079, H.R. 2296, H.R. 2426, H.R. 2513, H.R. 2594, H.R. 2701, H.R. 2767, H.R. 2857, H.R. 2881, H.R. 3715, H.R. 5161, H.R. 5560, H.R. 6052, S. 146, S. 298, S. 701, S. 818, S. 875, S. 894, S. 1000, S. 1073, S. 1115, S. 1321, S. 1324, S. 1419, S. 2555
IV. Renewable Energy Resources and Technologies
Alcohol Fuels/Biofuels/Biodiesel. H.R. 6, H.Con.Res. 153, H.Con.Res. 157, S.Con.Res. 3, H.Res. 651, H.R. 76, H.R. 86, H.R. 182, H.R. 196, H.R. 277, H.R. 349, H.R. 517, H.R. 547, H.R. 559, H.R. 570/S. 331, H.R. 604, H.R. 635, H.R. 682, H.R. 765, H.R. 791, H.R. 792, H.R. 825, H.R. 872, H.R. 927, H.R. 931, H.R. 1186, H.R. 1300, H.R. 1551/S. 919, H.R. 1766, H.R. 1987, H.R. 2037, H.R. 2039, H.R. 2144, H.R. 2154, H.R. 2178, H.R. 2218, H.R. 2256, H.R. 2261, H.R. 2354/S. 133, H.R. 2419, H.R. 2426, H.R. 2454, H.R. 2641, H.R. 2656, H.R. 2752, H.R. 2773/H.R. 2763, H.R. 2776, H.R. 2858, H.R. 2867, H.R. 3101, H.R. 3113, H.R. 3238, H.R. 3781, H.R. 3997, H.R. 4306, H.R. 5351, H.R. 5437, H.R. 5656, H.R. 5713, H.R. 5911, H.R. 5917, H.R. 5986, H.R. 6049, H.R. 6052, H.R. 6125, H.R. 6134, H.R. 6136, S. 23, S. 36, S. 162, S. 167/H.R. 395, S. 280/H.R. 620, S. 339/H.R. 670, S. 386, S. 426, S. 541, S. 701, S. 828, S. 859, S. 872, S. 875, S. 987, S. 1007, S. 1106, S. 1238, S. 1242, S. 1297, S. 1321, S. 1324, S. 1403, S. 1424, S. 1491, S. 1601, S. 1602, S. 1616, S. 1618, S. 1791, S. 1813, S. 1828, S. 2191, S. 2242, S. 2302, S. 2306, S. 2345, S. 2958
Biopower/Biomass. H.Con.Res. 153, H.R. 197, H.R. 517, H.R. 683, H.R. 1133, H.R. 1186, H.R. 1551/S. 919, H.R. 1600, H.R. 2038/S. 1154, H.R. 2144, H.R. 2337, H.R. 2428, H.R. 2641, H.R. 2656, H.R. 2742, H.R. 2810, H.R. 3101, H.R. 3107, H.R. 4306, H.R. 5216; S. 280/H.R. 620, S. 36, S. 541, S. 2546, S. 2558

Geothermal. H.R. 197, H.R. 1133, H.R. 1591, H.R. 1977, H.R. 2298, H.R. 2304, H.R. 2641, H.R. 2990, H.R. 5146, H.R. 6049, S. 298, S. 1020, S. 1543, S. 1637, S. 2314
Hydrogen. H.Con.Res. 153, H.R. 498, H.R. 805, H.R. 2641, H.R. 5146, H.R. 5746, S. 280/H.R. 620, S. 2129
Hydropower/Tidal/Wave/Ocean. H.Con.Res. 153, H.R. 197, H.R. 490/S. 306, H.R. 632, H.R. 1133, H.R. 2036, H.R. 2313, H.R. 2776, H.R. 2838, H.R. 3105, H.R. 4773, H.R. 5146, H.R. 5452, H.R. 6049, H.R. 6133, S. 298, S. 425, S. 1020
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Electricity Transmission Lines. H.R. 809, H.R. 810, H.R. 829, H.R. 4059, S. 2076, S. 2242

Legislation

Public Laws

P.L. 110-234 (H.R. 2419)

Food, Conservation, and Energy Act of 2008 ("2008 Farm Bill"). The law extends, expands, and adds to several energy efficiency and renewable energy provisions of the Farm Security Act of 2002 (P.L. 107-171). Most energy provisions appear in Title IX, which sets out bioenergy programs and grants for procurement of biobased products to support development of biorefineries and assist eligible farmers, ranchers, and rural small businesses in purchasing renewable energy systems, as well as user education programs. Title XV contains two extensions of tax credits for biofuels. The House and Senate overrode an Administration veto to enact the bill into law on May 22, 2008. (For more details, see CRS Report RL33934, *Farm Bill Legislative Action in the 110th Congress.*)

P.L. 110-229 (S. 2739)

Consolidated Natural Resources Act of 2008. DOE is directed to create a grant program to support technology transfer for advanced energy efficiency equipment. Signed into law May 8, 2008.

P.L. 110-181 (H.R. 4986)

National Defense Authorization Act for Fiscal Year 2008. DOD would be allowed to use up to $70 million of its authorized appropriations for energy conservation projects. The Pentagon complex would be required to use high-energy efficiency light bulbs throughout its buildings. An annual report to Congress would be required that describes the extent to which energy from renewable energy sources is used to meet DOD electricity needs. Renewable energy use would be stated as a percentage of total facility electricity use for the previous fiscal year. Signed into law January 28, 2008. (For further description, see "H.R. 4986" in section on "House Bills (with Senate Companions)" later in this report.)

P.L. 110-161 (H.R. 2764)

Consolidated Appropriations Act for FY2008. Title III of Division C makes appropriations for DOE's EERE Program. Title II of Division J makes appropriations for support of renewable energy products at ExIm Bank and for energy efficiency and renewable energy activities under USAID's Development Assistance Program. Title III of Division A makes appropriations for USDA's Renewable Energy Program. Signed into law December 26, 2007.

P.L. 110-140 (H.R. 6)

Energy Independence and Security Act of 2007. Includes key provisions for CAFE, RFS, and appliance/lighting efficiency standards. Signed into law December 19, 2007. (For further description, see CRS Report RL34294, *Energy Independence and Security Act of 2007: A Summary of Major Provisions.*)

P.L. 110-116 (H.R. 3222)

Department of Defense Appropriations Act, FY2008. Division B makes further continuing appropriations for DOE and other agencies from November 17, 2007, through December 14, 2007. Conference committee reported (H.Rept. 110-434) November 6, 2007. Passed House and Senate, November 8, 2007. Signed into law November 13, 2007.

P.L. 110-69 (H.R. 2272)

America COMPETES Act of 2007. Section 2005 (Division B) establishes an Advanced Research Projects Authority-Energy (ARPA-E) at DOE. The new Authority is directed to focus on overcoming the "long-term and high-risk technological barriers" in the development of renewable energy, energy efficiency, and other technologies. "Such sums" as necessary are authorized for each fiscal year from 2008 through 2011. Signed into law August 9, 2007.

P.L. 110-5 (H.J.Res. 20)

Revised Continuing Appropriations Resolution, 2007. Provides continuing FY2007 appropriations through September 30, 2007. Funding for DOE's Energy Efficiency and Renewable Energy Programs is set at $1.47 billion, about $280 million above the FY2006 appropriation. Also, the resolution eliminates earmarks and sets conditions on the EPACT Title 17 loan guarantee program, fixing a cap at $4 billion, prohibiting awards until final regulations are issued, and requiring annual program evaluations by an independent auditor. Signed into law February 15, 2007.

House Bills (with Senate Companions)

H.Con.Res. 25 (Peterson)/S.Con.Res. 3 (Salazar)

The sense of the Congress would be expressed that it is the goal of the United States that, not later than January 1, 2025, the agricultural, forestry, and working land of the United States should provide from renewable resources not less than 25% of the total energy consumed in the United States and continue to produce safe, abundant, and affordable food, feed, and fiber. House bill introduced January 10, 2007; referred to Committees on Agriculture, Energy and Commerce, and Natural Resources. Senate bill introduced January 17, 2007; referred to Committee on Agriculture, Nutrition, and Forestry. Reported (H.Rept. 110-344, Part 1) September 24, 2007.

H.Con.Res. 96 (Dicks)

The sense of the Congress would be expressed that there should be enacted a mandatory national program to slow, stop and reverse emissions of greenhouse gases. The program would include mandatory, market-based limits and incentives on emissions of greenhouse gases that slow, stop, and reverse the growth of such emissions at a rate and in a manner that would not significantly harm the U.S. economy; and would encourage comparable action by other nations that are major trading partners and key contributors to global emissions. Introduced March 21, 2007; referred to Committee on Energy and Commerce.

H.Con.Res. 99 (Spratt)/S.Con.Res. 21 (Conrad)

This resolution would revise the congressional budget for FY2007, establish the budget for FY2008, and set forth appropriate budgetary levels for FY2009 through FY2012. The House resolution provides funding for energy (Function 270) above the President's request that "could be used for research, development, and deployment of renewable and alternative energy." Section 207 of the House resolution would create a deficit-neutral reserve fund that fulfills the purposes of H.R. 6 (CLEAN Energy Act, §301a), namely to "facilitate the development of conservation and energy efficiency technologies, clean domestic renewable energy resources, and alternative fuels that will reduce our reliance on foreign oil." Section 307 of the Senate resolution would create a deficit-neutral reserve fund that could be used for renewable energy, energy efficiency, and responsible development of oil and natural gas. Section 332 would create a deficit-neutral reserve fund for extension through 2015 of certain energy tax incentives, including the renewable energy electricity production tax credit (PTC), Clean Renewable Energy Bonds, and provisions for energy efficient buildings, products, and power plants. Section 338 would create a deficit-neutral reserve fund for manufacturing initiatives that could include tax and R&D measures that support alternative fuels, automotive technologies, energy technologies, and the infrastructure to support the technologies. House Committee on the Budget reported (H.Rept. 110-69) March 23, 2007. Passed House (216-210) March 29, 2007. Senate Committee on the Budget reported (without written report) March 16, 2007. Passed Senate March 23, 2007. Senate bill passed in House (212-207) May 8, 2007. Senate appointed conferees May 9, 2007.

H.Con.Res. 104 (Carnahan)/S.Res. 30 (Biden)

The sense of the Congress would be expressed that the United States should return to international negotiations on climate change and take a leadership role in those negotiations. The resolution would recognize that there are security and economic benefits from reducing greenhouse gas emissions and from markets for new, climate-friendly technologies. House bill introduced April 23, 2007. Referred to Committee on Foreign Affairs April 29, 2007. Senate bill introduced January 16, 2007; referred to Committee on Foreign Relations. Reported (without a written report) March 29, 2007.

H.Con.Res. 153 (Gilchrist)

The sense of the Congress would be expressed regarding the need for a nationwide diversified energy portfolio. The resolution states that Congress and the Executive Branch should pursue the development and commercial deployment of a diverse portfolio of energy technologies, including biofuels, wind, solar, ocean energy, and hydrogen fuel cells. The resolution states that Congress should pursue

development of policies to promote major energy efficiency initiatives, including fuel economy standards, energy efficient light bulbs, energy efficient appliances, hybrid vehicles, and public transportation. Introduced May 22, 2007; referred to Committee on Energy and Commerce.

H.Con.Res. 157 (Radanovich)

Congress would reaffirm its commitment to developing alternative and renewable energy, in particular biodiesel and other biofuels. To support efforts to combat air pollution in California, the resolution would support R&D in California on biodiesel and biofuels obtained from agricultural products and byproducts. Introduced May 23, 2007; referred to Committee on Science and Technology.

H.Con.Res. 245 (Perlmutter)

Commending the National Renewable Energy Laboratory for its work of promoting energy efficiency for 30 years. Introduced November 1, 2007; referred to Committee on Science and Technology.

H.Con.Res. 251 (Perlmutter)

The National Renewable Energy Laboratory would be commended for its 30 years of work promoting energy efficiency. Introduced November 8, 2007; referred to Committee on Science and Technology. Passed House by voice vote December 5, 2007. In the Senate, the bill was referred to the Committee on Energy and Natural Resources.

H.Con.Res. 252 (Burgess)

This resolution expresses the sense of Congress that no federal or state requirement to increase energy efficient lighting in public buildings should require a hospital, school, day care center, mental health facility, or nursing home to install or utilize lighting that contains mercury. Introduced November 9, 2007; referred to Committees on Transportation and Infrastructure and Energy and Commerce.

H.Con.Res. 312 (Spratt)

The House budget resolution would set forth the FY2009 federal budget and the appropriate budgetary levels for FY2010 through FY2013. Section 305 would establish a deficit-neutral reserve fund for renewable energy and energy efficiency. The Committee on the Budget reported (H.Rept. 110-543) the resolution on March 7, 2008. Passed House (212-207) on March 13, 2008.

H.J.Res. 20 (Obey)

Revised Continuing Appropriations Resolution, 2007. P.L. 109-383 would be superseded to extend FY2007 appropriations through September 30, 2007. Funding in FY2007 for DOE's Energy Efficiency and Renewable Energy Programs would be increased by $300 million above the FY2006 level of $1.17 billion. The resolution would otherwise eliminate earmarks. Also, the resolution would set conditions on the loan guarantee program established in Title 17 of EPACT. It would set the program cap at $4 billion, prohibit awards until final regulations are issued, and require annual evaluations of the program by an independent auditor. Introduced January 29, 2007; referred to Committee on Appropriations. Passed House (286-140) January 31, 2007. Cloture motion filed on Senate floor February 8. Passed Senate (81-15) February 14, 2007. Signed into law February 15, 2007 (P.L. 110-5).

H.Res. 12 (Bartlett)

The sense of the House of Representatives would be expressed that the United States (1) must move rapidly to increase the productivity with which it uses fossil fuel, and to accelerate the transition to renewable fuels and a sustainable, clean energy economy; and (2) should establish, in collaboration with other international allies, an energy project with the magnitude, creativity, and sense of urgency of the "Man on the Moon" project to develop a comprehensive plan to address the challenges presented by Peak Oil (the peak in the world's oil production believed by some petroleum experts likely to occur in the next decade). Introduced January 4, 2007; referred to Committee on Energy and Commerce.

H.Res. 202 (Millender-McDonald)

Funding would be provided for the operating costs of certain committees of the House of Representatives during the 110th Congress. Section 4 would establish a Select Committee on Energy Independence and Global Warming in the House of Representatives. The select committee would not have legislative jurisdiction and would have no authority to take legislative action on any bill or resolution. Its sole authority would be to investigate, study, make findings, and develop recommendations on policies, strategies, technologies, and other innovations intended to reduce the dependence of the United States on foreign sources of energy and achieve substantial and permanent reductions in emissions and other activities that contribute to climate change and global warming. Introduced February 28, 2007; referred to Committee on House Administration. Reported (H.Rept. 110-29) March 5, 2007. Passed House (269-150) March 8, 2007.

H.Res. 651 (Engel)

The importance of the March 9, 2007 United States-Brazil Memorandum of Understanding (MOU) on biofuels cooperation would be recognized. Also, the joint efforts by the United States and Brazil, and their commitment to provide technical assistance for biofuels industries in certain other countries, would be commended. Introduced September 17, 2007; referred Committee on Foreign Affairs. Subcommittee on the Western Hemisphere held hearing September 19, 2007. Passed House by voice vote October 9, 2007.

H.Res. 1105 (McDermott)

The President would be urged to issue a proclamation that calls for an observance of "Earth Hour" and looks to promote awareness of Earth Hour in future years to encourage efficient energy usage behaviors and strategies. Introduced April 14, 2008; referred to Committee on Energy and Commerce.

H.Res. 1117 (McNerney)

DOE would be encouraged to step up RD&D on renewable energy technology and energy conservation techniques. Further, it calls on American society to work together to ensure that R&D needed to uncover solutions to major environmental problems occurs in a timely manner. Introduced April 17, 2008. Passed House by voice vote April 22, 2008.

H.Res. 1206 (Latta)

Expressing the sense of the House of Representatives that any comprehensive plan to reform our national energy policy must promote the expanded use of

renewable and alternative energy sources; increase our domestic refining capacity; promote conservation and increased energy efficiency; expand research and development, including domestic exploration; and, enhance consumer education. Introduced May 15, 2008; referred to Committees on Energy and Commerce, and Science and Technology.

H.R. 6, House Version #1 (Rahall)

CLEAN Energy Act of 2007. Certain tax and royalty policies for oil and natural gas would be revised, and the resulting revenue would be used to support a reserve for new energy efficiency and renewable energy initiatives. The bill is one part of the "100 hours" initiatives put forward by the Democratic Leadership of the House. Introduced January 12, 2007; referred to Committees on Ways and Means, Natural Resources, Budget, and Rules. Brought to the House Floor and passed House (264-163) January 18, 2007.

H.R. 6, Senate Version #1 (Reid)

Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007. The Senate version of H.R. 6 is an omnibus energy policy bill that consists mainly of provisions for energy efficiency and renewable energy. Title I, the Biofuels for Energy Security and Transportation Act, would increase the renewable fuel standard, set some standards for greenhouse gas emissions reductions, and provide support for fuel infrastructure, feedstocks, and biorefineries. Title II, the Energy Efficiency Promotion Act, would set some new standards for energy efficient equipment, establish goals for fuel savings, strengthen federal energy efficiency requirements, and authorize several new programs for vehicles and grants. Title III, the Carbon Capture and Storage Research, Development, and Demonstration Act, would call for large-scale testing of carbon dioxide (CO_2) storage in geological formations, establish competitive funding awards, direct that a national storage capacity assessment be conducted, and require that the Department of Energy (DOE) demonstrate the use of large-scale capture technologies at industrial facilities. Title IV, Cost-Effective and Environmentally Sustainable Public Buildings, would direct the General Services Administration (GSA) to establish a program to speed the use of cost-effective energy-efficient lighting equipment and other technologies and practices. Further, GSA would be required to prepare a five-year plan to replace inefficient lighting in GSA buildings using available funds. Also, an EPA matching grant program would be created to help local governments renovate buildings to improve energy efficiency. For this program, $20 million would be authorized. Title V, the Ten-in-Ten Fuel Economy Act of 2007, would require that the corporate average fuel economy standard (CAFE) for new cars and light trucks be increased to 35 miles per gallon (mpg) by 2020 and require a 4% annual increase for 10 years thereafter. Starting in 2011, a 4% annual increase would also be required for medium- and heavy-duty trucks. On May 8, 2007, the Senate Committee on Commerce, Science, and Transportation marked up an amendment in the nature of a substitute. With little debate, the amended bill was ordered reported by voice vote. Title VI, *Price Gouging*, would criminalize price gouging in fuel markets during an energy emergency. Title VII, the Energy Diplomacy and Security Act of 2007 would express the sense of Congress on several aspects of international energy cooperation, with a special emphasis on increasing the use of sustainable energy sources. The Department of State would be encouraged to establish four new types of administrative mechanisms. One type of mechanism would be strategic energy

partnerships with the governments of major energy producers and consumers, and with governments of other countries. A second type would be petroleum crisis response mechanisms with the governments of China and India. A third would be a Western Hemisphere energy crisis response mechanism. A fourth would be a regionally-based ministerial Hemisphere Energy Cooperation Forum. Also, the Department of State would be encouraged to approach other governments in the Western Hemisphere to cooperate in establishing a "Hemisphere Energy Industry Group" of industry and government representatives, which would be coordinated by the U.S. government. The President would be encouraged to introduce the topic of "the merits of establishing an international energy program application procedure" for discussion at the Governing Board of the International Energy Agency. Also, the bill would establish a "Hemisphere Energy Cooperation Forum," that would be encouraged to implement an Energy Crisis Initiative, an Energy Sustainability Initiative, and an Energy for Development Initiative. Title VIII, Miscellaneous, would require that DOE study and report on the laws and regulations that affect the siting of privately owned electric distribution wires on and across public rights-of-way. The House version of H.R. 6 was amended on the Senate floor. S.Amdt. 2105, an amendment in the nature of a substitute, replaced the House version with the text of S. 1419. Several second degree amendments to S.Amdt. 2105 were adopted. The Senate approved the amended bill by a vote of 65-27 on June 21, 2007.

H.R. 6, House Version #2, Amendments to Senate Amendments (Rahall)

Energy Independence and Security Act of 2007. On December 5, 2007, the House passed (235-181) its amendments to the Senate-passed amendments to H.R. 6. The House version of the bill included a proposed increase of the corporate average fuel economy (CAFE) standard to 35 miles per gallon by 2020 and an increase of the renewable fuel standard to 36 billion gallons per year by 2022. The House bill also included a proposed 15% renewable electricity portfolio standard and $21 billion of new tax incentives for energy efficiency and renewable energy measures. The bill proposed to offset the new tax incentives with a repeal of certain tax subsidies for oil and natural gas. On December 6, 2007, a Senate cloture vote on the House bill failed (53-42). After that vote, Members of the Senate indicated that work would now begin on a new Senate amendment to H.R. 6.

H.R. 6, Senate Version #2, Amendments to Senate Amendments (Reid)

Energy Independence and Security Act of 2007. On December 13, 2007, the Senate took up S.Amdt. 3841, its substitute amendment to the House-passed version #2 of H.R. 6. The Senate substitute was nearly identical to the House-passed bill, except that the RPS provision had been taken out and the package of tax provisions had been modified somewhat. A cloture vote on the amendment failed (59-40). The RPS and most tax provisions were subsequently removed. The remaining text was placed in S.Amdt. 3850 to H.R. 6. That amendment was adopted by the Senate (8-8) December 13, 2007. The House adopted the Senate amendment (314-100) December 18, 2007. The bill was signed into law as P.L. 110-140 on December 19, 2007.

H.R. 76 (Bartlett)

For the alternative motor vehicle tax credit available to consumers, the number of eligible vehicles sold for use in the United States that would trigger the credit

phase-out period would increase from 60,000 to 250,000. Introduced January 4, 2007; referred to Committee on Ways and Means.

H.R. 80 (Bartlett)

R&D, demonstration, and commercial application activities would be required to enable the development of farms that are net producers of both food and energy. DOE would be directed to enter into an arrangement with the National Academy of Sciences to (1) develop recommendations for evaluation measures and criteria for programs under this act; and (2) evaluate the feasibility of prize and best practices award programs as tools to promote self-powered farms. Further, it would direct DOE to (1) establish an award program for up to 30 state agricultural research programs for self-powered farm demonstrations; (2) provide low-cost revolving loans and loan guarantees to eligible entities for the commercial application of energy or other technologies that will contribute to establishing self-powered farms, with highest preference given to applicants who propose to meet their energy needs from biobased feedstocks or other renewable energy sources produced on that farm; and (3) enter into an arrangement with the National Academy of Sciences for a review of the programs under this act. Introduced January 4, 2007; referred to Committees on Science and Technology and on Agriculture.

H.R. 84 (Biggert)

Energy Efficient Buildings Act of 2007. Directs DOE to (1) establish a pilot program to award grants to businesses and organizations for new construction or major renovations of energy efficient buildings that will result in innovative energy efficiency technologies, especially those sponsored by DOE; and (2) give due consideration to proposals for buildings that are likely to serve low and moderate income populations. Defines "energy efficient building" as one that, after construction or renovation, (1) uses heating, ventilating, and air conditioning systems that perform at no less than Energy Star standards; or (2) if Energy Star standards are not applicable, uses Federal Energy Management Program recommended heating, ventilating, and air conditioning products. Introduced January 4, 2007; referred to Committee on Science and Technology.

H.R. 85 (Biggert)

Energy Technology Transfer Act. Directs DOE to award grants for a five-year period to nonprofit institutions, state and local governments, cooperative extension services, or universities (or consortia thereof) to establish a geographically dispersed network of Advanced Energy Technology Transfer Centers, located in areas DOE determines have the greatest need of their services. Requires DOE to give priority to applicants already operating or partnered with an outreach program capable of transferring such knowledge and information about advanced energy efficiency methods and technologies. Introduced January 4, 2007; referred to Committee on Science and Technology. Reported (H.Rept. 110-38) March 8, 2007. Passed House, March 12, 2007. In Senate, referred to Committee on Energy and Natural Resources. Ordered Reported without amendment July 25, 2007. Reported (S.Rept. 110-162) September 17, 2007.

H.R. 86 (Biggert)

Oil and Gas-to-Alternatives Swap (OGAS) Act of 2007. Certain fossil energy tax incentives would be repealed and the limitation on the number of new qualified

hybrid and advanced lean-burn technology vehicles eligible for the tax credit for alternative motor vehicles would be repealed. Also, the bill would extend through 2012 the alternative motor vehicles tax credit for (1) advanced lean burn technology motor vehicles; (2) qualified hybrid motor vehicles; and (3) qualified alternative fuel vehicles. Introduced January 4, 2007; referred to Committee on Ways and Means.

H.R. 121 (Doyle)/S. 506 (Lautenberg)

High-Performance Green Buildings Act of 2007. Title I would establish a federal office of green buildings in the General Services Administration (GSA) to coordinate efforts in federal agencies. This activities of this office would include outreach to federal agencies, review related R&D findings, and develop guidance for life-cycle costing and contracting. Section 107 would authorize $4 million for Title I activities. Title II would identify incentives and procurement practices to promote federal use of green building activities. Section 203 directs GAO to audit the performance of this act's provisions and report to Congress. Title III directs GSA to conduct an annual demonstration project from 2009 through 2014 and authorizes a total of $10 million for those projects, and it calls for annual demonstration projects at universities with an additional $10 million authorization. House bill introduced January 4, 2007; referred to Committees on Energy and Commerce, Oversight and Government Reform, Science and Technology, and Transportation and Infrastructure. Senate bill introduced February 6, 2007; referred to Committee on Environment and Public Works.

H.R. 139 (Granger)/S. 894 (Lincoln)

Idling Reduction Tax Credit Act of 2007. A business tax credit of 25% of the cost of a qualifying idling reduction device, up to $1,000, would be created. Defines "qualifying idling reduction device" as any device that is (1) installed on a heavy-duty diesel-powered on-highway vehicle to provide services that would otherwise require the operation of the main drive engine while the vehicle is temporarily parked or stationary; and (2) certified by DOE to reduce long-duration idling. DOE would be directed to publish standards for certifying such devices. House bill introduced January 4, 2007; referred to Committee on Ways and Means. Senate bill introduced March 15, 2007; referred to Committee on Finance.

H.R. 157 (Holt)

Fuel Savings, Smarter Travel, and Efficient Roadways Act. Directs DOE to study and report to Congress on the potential fuel savings from intelligent transportation systems that help businesses and consumers plan travel and avoid delays. Introduced January 4, 2007; referred to Committee on Energy and Commerce.

H.R. 165 (Jindal)

Realistic Roofing Tax Treatment Act of 2007. Roof systems would be categorized as 20-year property for depreciation purposes. (See related bill, H.R. 4126.) Introduced January 7, 2007; referred to Committee on Ways and Means.

H.R. 182 (Lofgren)

To Encourage Alternatively-fueled vehicle Manufacturing up for Energy Independence Act of 2007; also referred to as the "TEAM up for Energy Independence Act." An excise tax on non-alternative-fueled vehicles and gas-guzzler

vehicles would be established. The revenue would be used to establish a trust fund at the Department of the Treasury. DOE would be directed to use the trust fund to make grants to fueling stations owned by entities which own or control 10 or fewer such businesses for alternative fuel refueling infrastructure projects, including new dispensing facilities and additional equipment or upgrades and improvements to existing refueling sites for alternative fuel vehicles. Introduced January 4, 2007; referred to Committees on Ways and Means and on Energy and Commerce.

H.R. 196 (Pomeroy)

Renewable Fuels and Energy Independence Promotion Act of 2007. Section 2 would make permanent certain tax incentives for biodiesel and alcohol fuels. Section 3 would modify the ethanol import duty. Introduced January 4, 2007; referred to Committee on Ways and Means.

H.R. 197 (Pomeroy)

Extends the renewable energy production tax credit (PTC) for five years, from the end of 2008 through the end of 2013. Introduced January 4, 2007; referred to Committee on Ways and Means.

H.R. 277 (Cleaver)

Congress Leads by Example through Alt-fuel Resources (CLEAR) Act. Would prohibit Members of the House from using any portion of their representational allowance to provide any individual with a vehicle, including providing an individual with a vehicle under a long-term lease, which is not an alternative fuel vehicle. Introduced January 5, 2007; referred to Committee on House Administration.

H.R. 345 (Hoekstra)

Cool and Efficient Buildings Investment Act. A 20-year depreciation recovery period, calculated on a straight line basis, would be created for heating, ventilation, air conditioning, or commercial refrigeration systems installed in nonresidential buildings and placed in service during calendar years 2007 and 2008. Introduced January 9, 2007; referred to Committee on Ways and Means.

H.R. 349 (Kline)

10-by-10 Act. Would require that motor fuels have a minimum renewable fuels content of 10% by the beginning of 2010. Introduced January 9, 2007; referred to Committee on Energy and Commerce.

H.R. 364 (Gordon)

An Advanced Research Projects Agency-Energy (ARPA-E) would be established at DOE. Its goal would be to reduce the energy imports from foreign sources by 20% over a 10-year period. The ARPA-E Director would manage an Energy Independence Acceleration Fund to award competitive grants, cooperative agreements, or contracts to institutions of higher education, companies, or consortia, including federally funded research and development centers, to achieve specified goals through targeted acceleration of: (1) energy-related research; (2) development of resultant techniques, processes, and technologies, and related testing and evaluation; and (3) demonstration and commercial application of the most promising technologies and research applications. DOE would be directed to establish procedures and criteria for recoupment of the federal share of each project supported

under this act. The President's Committee on Science and Technology would be required to evaluate for Congress and the public how well ARPA-E achieves its goals and mission. Introduced January 10, 2007; referred to Committee on Science and Technology. Hearing held April 25, 2007. Ordered to be reported May 23, 2007. Incorporated into H.R. 3221 as Subtitle A of Title IV on Science and Technology.

H.R. 395 (Salazar)/S. 167 (Boxer)

Cellulosic Ethanol Development and Implementation Act of 2007. DOE would be required to provide grants to eligible entities to carry out R&D and demonstration projects on cellulosic ethanol and construct infrastructure that enables retail gas stations to dispense cellulosic ethanol for vehicle fuel to reduce the consumption of petroleum fuels. House bill introduced January 10, 2007; referred to Committees on Energy and Commerce and on Science and Technology. Senate bill introduced January 4, 2007; referred to Committee on Environment and Public Works.

H.R. 490 (McNulty)/S. 306 (Schumer)

Mohawk River Hydroelectric Projects Licensing Act of 2007. The Federal Energy Regulatory Commission (FERC) would be prohibited from issuing a new license for a hydroelectric project on the Mohawk River in New York state if the project has been operating under annual licenses for 10 or more years, unless FERC (1) issues a public notice that it will accept other valid license applications to develop or dispose of the project works or water resource (including certain nonpower license applications) and (2) approves a license application, according to the requirements of this act, if other valid license applications are submitted, or if FERC has issued a new license that is not yet final. Also, processing and approval procedures would be established. Any new power license issued for such a project would be required to include the same license conditions relating to the use of affected waters, as provided in the license for a specified Potomac Light & Power Company Project. Further, this act would be declared as applicable to specified hydroelectric projects for which (1) a new license has been issued at the time of this act but which has not yet become final under law, (2) there are pending judicial appeals, (3) the time has not yet lapsed for filing such appeals, or (4) there is a pending appeal of the Clean Water Act section 401 Water Quality Certificate. House bill introduced January 16, 2007; referred to Committee on Energy and Commerce. Senate bill introduced January 16, 2007; referred to Committee on Energy and Natural Resources.

H.R. 498 (Wynn)

Energy Policy Reinvestment Act of 2007. Section 2 would repeal certain oil and natural gas tax subsidies and Section 3 would direct that the resulting revenue be used to support certain DOE hydrogen and fuel cell technology programs. Introduced January 16, 2007; referred to Committees on Ways and Means, Science and Technology, Oversight and Government Reform, and Energy and Commerce.

H.R. 517 (J. Davis)

Independence from Oil with Agriculture Act of 2007. Section 2 would extend certain tax credits for alcohol and biodiesel fuels and fuel mixtures. Section 3 would make permanent the renewable energy electricity production tax credit (PTC) for wind, open-loop biomass, and closed-loop biomass. Section 4 would make permanent the tax credit for clean fuel vehicle refueling property. Section 5 would increase the renewable fuel standard (RFS) set by EPACT from 7.5 billion gallons

to 12.0 billion gallons in 2012. Introduced January 17, 2007; referred to Committees on Ways and Means and on Energy and Commerce.

H.R. 539 (Schwartz)

Buildings for the 21st Century Act. The tax deduction for energy efficient commercial building costs (P.L. 109-432, §204) would be increased, and the period of eligibility would be extended five years, through 2013. Introduced January 17, 2007; referred to Committee on Ways and Means.

H.R. 547 (Gordon)

Advanced Fuels Infrastructure Research and Development Act. Section 3 would direct DOE, in consultation with the National Institute of Standards and Technology, to conduct a program of research, development, demonstration, and commercial application of materials to be added to alternative biobased fuels to make them more compatible with existing infrastructure used to store and deliver petroleum-based fuels to the point of final sale. Introduced January 18, 2007; referred to Committee on Science and Technology. Reported (H.Rept. 110-7) February 5, 2007. Passed House, amended, February 8, 2007. H.Amdt. 6 was approved, which would allow fuel distributors and retailers to transform their businesses by dispensing hydrogen, reformed on site from various feedstocks, or delivered by pipeline or tube trucks. H.Amdt. 9 was approved, which would establish an energy security fund and an alternative fuel grant program.

H.R. 550 (McNulty)/S. 590 (Smith)

Securing America's Energy Independence Act of 2007. The residential investment tax credit for energy efficient property, and the commercial investment tax credit for solar energy property and qualified fuel cell property, would be extended for eight years, from the end of 2008 to the end of 2016. Also, such credits would be allowed to be applied against alternative minimum tax liability. The definition of "energy property" would be expanded to include certain equipment that uses solar energy to generate or store excess electricity. A special credit amount based on kilowatt capacity would be set for solar photovoltaic energy property and residential energy efficient property. A tax credit would be allowed for the full amount of qualified photovoltaic property expenditures. That credit is currently limited to 30%. A three-year recovery period would be allowed for accelerated depreciation for solar energy and fuel cell property. House bill introduced January 18, 2007; referred to Committee on Ways and Means. Senate bill introduced February 14, 2007; referred to Committee on Finance.

H.R. 559 (Delahunt)/S. 23 (Harkin)

Biofuels Security Act of 2007. Section 101 would modify the EPACT (§ 1501) requirement that renewable fuel content reach 7.5 billion gallons in 2012, accelerating the requirement to 10 billion gallons by 2010 and then rising to 30 billion gallons by 2020 and 60 billion gallons by 2030. Other provisions would require E85 pumps at branded gasoline stations (§102), increased use of alternative fuels in the federal fleet (§103), increased manufacturers percentage of dual-fueled vehicles (§201), and increased manufacturers incentives for dual-fueled vehicles (§202). House bill introduced January 18, 2007; referred to Committees on Energy and Commerce, Oversight and Government Reform, and Judiciary. Senate bill

introduced January 4, 2007; referred to Committee on Commerce, Science, and Transportation.

H.R. 570 (Rogers)/S. 331 (Thune)

Moneys collected from violations of the corporate average fuel economy (CAFE) program would be placed in an Energy Security Fund to provide grants that support infrastructure needed to increase the availability of alternative fuels. House bill introduced January 18, 2007; referred to Committee on Energy and Commerce. Senate bill introduced January 18, 2007; referred to Committee on Energy and Natural Resources.

H.R. 589 (Inslee)

Get Real Incentives to Drive Plug-in Act. Section 3 would authorize $500 million for the Department of Transportation (DOT) to make grants to domestic vehicle manufacturers for R&D on plug-in hybrid vehicles (PIHVs). Section 4 would direct DOT to establish a pilot project to explore the integration of plug-in hybrid vehicles into the electric power grid. Section 5 would direct DOT to test battery technologies. Section 6 would require DOT and DOE to prepare a report on PIHVs. Section 7 would create a $3,000 investment tax credit for taxpayer purchases of PIHVs. Section 8 would require that at least 10% of federal agency vehicle purchases are PIHVs. Introduced January 19, 2007; referred to Committees on Science and Technology, Ways and Means, and Oversight and Government Reform.

H.R. 604 (Hayes)

E-85 Investment Act of 2007. Tax incentives for E-85 fuel vehicle refueling property would be modified by: (1) increasing to 75% the rate of such credit for property using 85% ethanol fuel; (2) reducing the maximum dollar amount of such credit in 2013 and 2014 for ethanol-related refueling property; and (3) extending such credit through 2016 for ethanol-related refueling property. Introduced January 22, 2007; referred to Committee on Ways and Means.

H.R. 620 (Olver)/S. 280 (Lieberman)

Climate Stewardship and Innovation Act of 2007. A program to reduce greenhouse gas emissions would be established through a market-driven system of tradeable allowances and support for the deployment of new climate change-related technologies. House bill introduced January 22, 2007; referred to Committees on Energy and Commerce, Science and Technology, and Natural Resources. Senate bill introduced January 12, 2007; referred to Committee on Environment and Public Works.

H.R. 632 (Lipinski)/S. 365 (Graham)

H-Prize Act of 2007. DOE would be authorized to establish monetary prizes for achievements in overcoming scientific and technical barriers associated with hydrogen energy. House bill introduced January 23, 2007; referred to Committee on Science and Technology. Reported amended (H.Rept. 110-171) June 5, 2007. Passed House (408-8) June 6, 2007. Senate bill introduced January 23, 2007; referred to Committee on Energy and Natural Resources.

H.R. 635 (Upton)

After the year 2012, all gasoline sold to consumers in the United States for motor vehicles would be required to contain at least 10% renewable fuel. Introduced January 23, 2007; referred to Committee on Energy and Commerce.

H.R. 656 (Reichert)

Higher standards of automobile fuel efficiency would be required, with the goal of reducing the amount of oil used for automobile fuel by 10% starting in 2017. Introduced January 24, 2007; referred to Committee on Energy and Commerce.

H.R. 670 (Engel)/S. 339 (Bayh)

Dependence Reduction through Innovation in Vehicles and Energy (DRIVE) Act. The national security and stability of the United States economy would be promoted by reducing oil dependence through the use of alternative fuels and new technology. Title I would establish a national oil savings target and action plan. Title II would set a broad range of policies for improving the fuel efficiency of vehicles. The provisions would include tire efficiency, idling reduction, plug-in hybrids, R&D, advanced diesel vehicles, manufacturing credits, consumer incentives, federal fleet requirements, reduced incentives for gas-guzzlers, and vehicle efficiency. Title III would set a broad range of policies for renewable energy and alternative fuels. The provisions would include modifications to tax credits for refueling property, biodiesel, and small ethanol producers. A minimum requirement would be set for cellulosic biofuels and sugar ethanol. Production incentives would be established for cellulosic biofuels. Low-interest loan and grant programs would be established for E85 fuel. Also, Transit-Oriented Development Corridors would be designated in certain urban areas. House bill introduced January 24, 2007; referred to Committees on Energy and Commerce, Science and Technology, Ways and Means, Transportation and Infrastructure, and Oversight and Government Reform. Senate bill introduced January 18, 2007; referred to Committee on Finance.

H.R. 682 (Kaptur)

The Strategic Petroleum Reserve would be expanded to cover alternative fuels, including ethanol and biodiesel. Introduced January 24, 2007; referred to Committee on Energy and Commerce.

H.R. 683 (R. Lewis)

Investment in Energy Independence Act of 2007. Biomass tax incentives would be promoted as a way to support energy independence. Introduced January 24, 2007; referred to Committee on Ways and Means.

H.R. 729 (Inslee)

Home Energy Generation Act. Each state regulatory authority and non-regulated electric utility would be required to conduct a hearing, and on the basis of such hearing, adopt a net metering standard. Retail electric suppliers would be required to offer to arrange to make net metering available to retail customers on a first-come-first-served basis. Also, implementation requirements would be prescribed regarding (1) net energy measurement, (2) billing practices, (3) ownership of credits, (4) safety and performance standards, (5) interconnection and model standards, and (6) consumer friendly contracts. Introduced January 30, 2007; referred to Committee on Energy and Commerce.

H.R. 765 (Weller)/H.R. 2557 (Weller)

New flexible fuel hybrid motor vehicles would be made eligible for the alternative motor vehicle tax credit through the end of 2014. They are defined to include a hybrid motor vehicle that is capable of operating on an alternative fuel, on gasoline, and on any blend thereof, and which is certified by EPA to have achieved a certain level of city fuel economy using E-85 ethanol fuel. Introduced January 31, 2007; referred to Committee on Ways and Means.

H.R. 778 (Weller)

The residential energy efficient property credit (P.L. 109-432, § 206) would be made permanent. Introduced January 31, 2007; referred to Committee on Ways and Means.

H.R. 791 (Weller)

The renewable fuel content standard (RFS) for gasoline sold in the United States would be increased to 8.9 billion gallons in 2013 and then rise to 25 billion gallons by the year 2025. Introduced January 31, 2007; referred to Committee on Energy and Commerce.

H.R. 792 (Weller)

Growing Responsible Energy and Environment Nationally through Federal Energy Decisions Act. Each federal agency would be directed to ensure that, in areas in which ethanol-blended gasoline is reasonably available at a generally competitive price, the federal agency purchases ethanol-blended gasoline containing at least 10% ethanol rather than non-ethanol-blended gasoline, for agency vehicles that otherwise would use gasoline. Introduced January 31, 2007; referred to Committee on Oversight and Government Reform.

H.R. 793 (Weller)

The renewable energy electricity production tax credit (PTC) would be made permanent. Introduced January 31, 2007; referred to Committee on Ways and Means.

H.R. 794 (Weller)

The renewable energy electricity production tax credit (PTC) would be made permanent for wind energy. Introduced January 31, 2007; referred to Committee on Ways and Means.

H.R. 798 (Oberstar)

The General Services Administration (GSA) would be directed to install a solar photovoltaic system for the DOE headquarters building. Introduced February 5, 2007; referred to Committee on Transportation and Infrastructure. Subcommittee on Economic Development, Public Buildings, and Emergency Management held hearing February 6. Committee markup held February 7; reported (H.Rept. 110-11) February 12, 2007. Passed House February 12, 2007. In Senate, referred to Committee on Environment and Public Works. Ordered to be reported June 6, 2007. Reported without amendment (S.Rept. 110-224). For further action see Title IV of H.R. 3248.

H.R. 805 (Doyle)

For hydrogen used as a vehicle fuel or to produce electricity, a permanent 30% fuel tax credit, capped at $1,500, would be created (§1). Also, the residential energy efficiency tax credit for fuel cells and the commercial energy credit for fuels cells and microturbines would be extended for five years, through the end of 2013 (§2). Further, secondary (backup) fuel cell power sources would be required for all new public buildings larger than 50,000 square feet (§3). In addition, DOT would be directed to study and report on regulations needed for a transition to hydrogen fuels (§4). Introduced February 5, 2007; referred to Committees on Ways and Means, Transportation and Infrastructure, and Energy and Commerce.

H.R. 809 (Hinchey)

Section 216 of the Federal Power Act (as added by P.L. 109-58) providing for the use of eminent domain authority for the construction of certain electric power lines would be repealed. Introduced February 5, 2007; referred to Committee on Energy and Commerce.

H.R. 810 (Hinchey)

Protecting Communities from Power Line Abuse Act. Certain provisions of the Federal Power Act added by P.L. 109-58 relating to the use of eminent domain authority for the construction of electric power lines would be modified. Introduced February 5, 2007; referred to Committee on Energy and Commerce.

H.R. 817 (Price)

Finding the Ultimate Energy Lifeline Act of 2007. Also referred to as the FUEL Act. A presidential working group would be created and charged with identifying for the President strategies and methods to reduce foreign oil use to less than 25% of total motor vehicle fuel use by 2015. Introduced February 5, 2007; referred to Committee on Energy and Commerce.

H.R. 823 (Welch)

Federal agencies and legislative branch offices would be authorized to purchase greenhouse gas offsets and renewable energy credits. Introduced February 5, 2007; referred to Committees on Oversight and Government Reform, House Administration, and Energy and Commerce.

H.R. 824 (Weller)

Ethanol and biodiesel refining property would be classified as seven-year property for purposes of the accelerated cost recovery system. Introduced February 5, 2007; referred to Committee on Ways and Means.

H.R. 825 (Weller)

Section 1 would extend the alternative motor vehicle tax credit through 2014, for all types of alternative vehicles. Section 2 would extend the alternative fuel vehicle refueling property tax credit through 2024 and increase the amount of the credit. Section 3 would extend the volumetric excise tax credit for alternative fuels and fuel mixtures through FY2014. Section 3d would extend the income tax credit for biodiesel and renewable diesel used as fuel through 2024. Section 3e would extend the small ethanol producer tax credit through 2024. Introduced February 5,

2007; referred to Committees on Oversight and Government Reform, House Administration, and Energy and Commerce.

H.R. 829 (Wolf)

The Federal Power Act would be amended to make certain changes in provisions relating to National Interest Transmission Corridors. Introduced February 5, 2007; referred to Committee on Energy and Commerce.

H.R. 872 (Braley)

The Department of Agriculture (USDA) would be authorized to make competitive grants to community colleges, and advanced technology education centers partnering with community colleges, to support the education and training of technicians in the fields of bioenergy and other agriculture-based, renewable energy resources. Introduced February 7, 2007; referred to Committee on Education and Labor.

H.R. 927 (Burgess)

The biodiesel income tax credit would be doubled, from 50 cents per gallon to $1 per gallon. Also, the biodiesel excise tax credit would be increased to $1 per gallon. Introduced February 8, 2007; referred to Committee on Ways and Means.

H.R. 969 (T. Udall)

Title VI of the Public Utility Regulatory Policies Act of 1978 would be amended to establish a Federal renewable energy portfolio standard (RPS) for retail electric utilities that would be administered by DOE. For each retail supplier, the RPS would set a minimum electricity production requirement from renewable resources, starting at 1% in 2010 and then rising annually until reaching a peak of 20% in 2020. Resources eligible to meet the RPS would include wind, solar, geothermal, biomass, landfill gas, ocean, tidal, and incremental hydropower. To supplement generation, retail suppliers would be allowed to purchase power from other organizations or to purchase tradable credits from suppliers with a surplus. Power generated on Native American lands would receive a double credit, and on-site generation used to offset the requirement would receive a triple credit. An excess of tradable credits could be carried forward (banked) for up to four years and a deficit of credits could be "borrowed" from anticipated generation up to three years into the future. A credit deficit would lead to a penalty that would be the lesser of 4.5 cents/kwh or 300% of the average market value of the credits. A credit cost cap (adjusted for inflation) would be set as the lesser of 3.0 cents/kwh or 200% of the average market value of the credits. States would be allowed to have stronger RPS requirements. DOE would be required to engage the National Academy of Sciences to evaluate the program. Introduced February 8, 2007; referred to Committee on Energy and Commerce.

H.R. 1126 (Lipinski)

Provisions of the Steel and Aluminum Energy Conservation and Technology Competitiveness Act of 1988 would be reauthorized, with $12 million over FY2008 through FY2012. Also, technologies that reduce greenhouse gas emissions would be made eligible for this funding. Introduced February 16, 2007; referred to Committee on Science and Technology. Reported (H.Rept. 110-41) March 8, 2007. Passed House March 12, 2007. In Senate, referred to Committee on Energy and Natural

Resources. Ordered Reported without amendment July 25, 2007. Reported (S.Rept. 110-181) September 17, 2007.

H.R. 1133 (Berkley)

Freedom Through Renewable Energy Expansion (FREE) Act. Section 8 would increase CAFE fuel economy standards for new passenger cars to a minimum of 33 mpg by 2016. Section 9 would extend the renewable electricity production tax credit for seven years, to the end of 2015. Section 10 would extend for seven years the business investment tax credits for solar energy and fuel cell equipment, and it would create a new credit for geothermal energy equipment. Section 11 would extend the investment tax credit for residential energy efficient property for seven years. Section 12 would create a new 30% investment tax credit for wind energy equipment installed in residences and businesses. Section 13 would authorize $32.5 million for geothermal energy research at DOE. Section 14 would establish a renewable portfolio standard for retail electric suppliers, which could be met with generation from solar, wind, biomass, landfill gas, incremental hydro, incremental geothermal, current, wave, tidal, or ocean thermal energy. Section 15 would increase the amount of renewable energy that federal agencies are required to purchase, rising from 3% in 2007 to 20% in 2015. Section 16 would require DOE to establish a grant program for renewable energy in school facilities. Introduced February 16, 2007; referred to Committees on Ways and Means, Natural Resources, Energy and Commerce, and Science and Technology.

H.R. 1186 (J. Wilson)

United States-India Energy Security Cooperation Act of 2007. Section 4 would authorize the President to establish energy cooperation programs to support R&D and deployment of various energy projects, including energy efficiency, ethanol, biomass, and other renewable energy sources. Introduced February 16, 2007; referred to Committee on Foreign Affairs.

H.R. 1215 (Rogers)

DOE would be authorized $20 billion to make certain loan guarantees for advanced conservation and fuel efficiency motor vehicle technology projects. Introduced February 27, 2007; referred to Committees on Energy and Commerce and on Science and Technology.

H.R. 1259 (Adam Smith)

High Performance Buildings Act of 2007. A grant program would be authorized to improve or carry out energy efficiency, conservation, and reuse of resources in affordable housing. A Sustainable Building Institute would be established within the National Science Foundation to undertake or support research, development, and commercial application of energy efficiency and renewable energy technologies for buildings. Introduced March 1, 2007; referred to Committees on Financial Services and on Science and Technology.

H.R. 1300 (Hoyer)

Program for Real Energy Security (PROGRESS) Act. Title I would establish a commission to study and report on options for using alternative fuels to reduce oil imports. Title II (§ 203) would create a public-private collaborative, "The New Manhattan Center for High Efficiency Vehicles," that would focus on battery,

advanced diesel and variable compression engines, plug-in hybrid vehicles with the goals of doubling vehicle efficiency and diversifying fuels, especially those derived from renewable resources. Also, Title II (§209) would establish a battery loan guarantee program to provide incentives to domestic manufacturers. Title III would establish a biofuels infrastructure grant program to support deployment of ethanol and biodiesel fuels. Title IV would set renewable fuel regulations to support investment in new cellulosic ethanol plants (§401), authorize $1 billion for a grant program to support cellulosic ethanol production (§402), establish quality and contents standards for biodiesel fuel (§403), require greater use of alternative fuels in the federal fleet (§404), require a report on vehicles and infrastructure for alternative fuels (§406), require that the Department of Defense (DOD) set aside a minimum about of funds for alternative fuel infrastructure (§407), support the development of alternative fuel refineries for military uses (§408), make plug-in hybrid vehicles eligible to satisfy federal agency fleet alternative fuel requirements (§409), and direct the Government Accountability Office (GAO) to study and recommend procurement of alternative-fueled vehicles for congressional use (§410). Title V would create an incentive for commuters to use transit (§501), establish a $2 billion grant for expansion of public transit services (§502), require a report on fuel savings from intelligent transportation systems (§503), establish a mediator to reduce delays in the development of local commuter rail projects (§513), and promote the use of guaranteed loans and rail bonds to help state and local governments expand intercity rail passenger service. Introduced March 1, 2007; referred to Committees on Energy and Commerce, Armed Services, Oversight and Government Reform, Science and Technology, Ways and Means, House Administration, and Transportation and Infrastructure.

H.R. 1331 (Doggett)

Expands the alternative motor vehicle tax credit to include certain qualified hybrid motor vehicles. Introduced March 6, 2007; referred to Committee on Ways and Means.

H.R. 1332 (Bean)

Small Business Lending Improvements Act of 2007. Sections 212 and 213 would authorize SBA loans for projects that reduce energy use by at least 10%. Introduced March 6, 2007; referred to Committee on Small Business. Committee markup held March 15, 2007; reported (H.Rept. 110-104) April 20. Passed House (380-45) April 25, 2007.

H.R. 1356 (Oberstar)/ S. 1076 (Inouye)

Next Generation Air Transportation System Financing Reform Act of 2007. Section 606 would require the Federal Aviation Administration (FAA) to establish a research consortium with goals to increase aircraft fuel efficiency 25% relative to 1997 subsonic aircraft technology and to determine the feasability of using alternative fuels in aircraft. Senate bill introduced March 29, 2007; referred to Committee on Finance. House bill introduced March 6, 2007; referred to Committees on Transportation and Infrastructure, Science and Technology, and Ways and Means.

H.R. 1385 (McDermott)/S. 822 (Snowe)

EXTEND the Energy Efficiency Incentives Act of 2007. Section 101 would create a new performance-based investment tax credit for residential energy

efficiency improvements that produce an energy savings of 20% or more. The credit would terminate at the end of 2011. Section 102 would extend the existing (EPACT §1333) residential tax credit for energy efficiency measures in existing homes for four years, from the end of 2007 through the end of 2011. Section 201 would extend the existing (EPACT §1332) tax credit for energy efficiency measures in new homes for three years, from the end of 2008 through the end of 2011. Section 202 would extend the existing (EPACT §1331) tax deduction for energy efficiency measures in commercial buildings through the end of 2012 and increase the amount of the deduction. Section 203 would establish a new tax deduction for energy efficient low-rise buildings. Section 204 would expand the list (EPACT §1331) of energy efficiency measures in commercial buildings that qualify for a tax deduction and make them eligible through the end of 2011. Section 301 would establish a new tax credit for energy savings training and certification costs and certification equipment expenditures. House bill introduced March 7, 2007; referred to Committee on Ways and Means. Senate bill introduced March 8, 2007; referred to Committee on Finance.

H.R. 1451 (Lundgren)

New Options Petroleum Energy Conservation Act of 2007. Section 2 would create a 20% investment tax credit for "climate-neutral" combustion facilities. Section 3 would extend the residential solar energy investment tax credit (EPACT § 1333) for four years, from the end of 2008 to the end of 2012. Section 4 would extend the residential energy efficiency property (EPACT § 1335) investment tax credit for four years, from the end of 2008 to the end of 2012. Section 5 would create a $1 billion prize for the first U.S. automobile manufacturer that produces a car that achieves 100 mpg. Section 6 would authorize $30 million for R&D on lithium ion batteries. Section 7 would allow refiners to expense costs for property used to refine ethanol, methanol, and biodiesel fuels. Introduced March 14, 2007; referred to Committee on Ways and Means.

H.R. 1500 (DeFazio)

Gasoline Price Stabilization Act of 2007. Section 6 would set up a tax credit schedule for American-made fuel-efficient passenger vehicles. The credit would be capped at $3,000 for light trucks (LTs) and sport utility vehicles (SUVs) that have a minimum fuel economy of 35 mpg and cars that attain a minimum of 45 mpg. The cap would rise to $4,500 for LTs and SUVs that attain 45 to 55 mpg and cars that reach 55 to 65 mpg. The cap would rise further to $6,000 for LTs and SUVs that attain 55 to 65 mpg and for cars that exceed 65 mpg. Section 9 would direct DOT to increase corporate average fuel economy (CAFE) standards to 37 mpg by 2017 and to 40 mpg by 2022. Section 10 would direct federal agencies to establish a baseline estimate of average fleet fuel economy in 2008. Each agency would then be directed to increase fuel economy above that baseline by 3 mpg by 2010 and 6 mpg by 2013. Introduced March 14, 2007; referred to Committees on Energy and Commerce, Ways and Means, Oversight and Government Reform, the Judiciary, Natural Resources, and Foreign Affairs.

H.R. 1506 (Markey)/S. 767 (Obama)

CAFE Fuel Economy Reform Act of 2007. DOT's National Highway Traffic Safety Administration (NHTSA) would be directed to increase new passenger car fuel economy by 4% annually for model year (MY) 2009 through MY2011 and for MY2013 through MY2018, attaining no less than 35 mpg by MY2018. House bill

introduced March 14, 2007; referred to Committee on Energy and Commerce. Senate bill introduced March 6, 2007; referred to Committee on Commerce, Science, and Transportation. Also, identical bill S. 768 was referred to Committee on Finance.

H.R. 1547 (Harman)

DOE would be required to regulate a steadily increasing efficiency standard for light bulbs, beginning at 60 lumens per watt in 2012, rising to 90 lumens per watt in 2016, and then to 120 lumens per watt in 2020. At each step, the sale of less-efficient light bulbs would be prohibited. Also, DOE would be required to develop a plan for incentives and other encouragement for consumers and businesses use to use more efficient light bulbs. Introduced March 15, 2007; referred to Committee on Energy and Commerce.

H.R. 1551 (Kind)/S. 919 (Menendez)

Healthy Farms, Foods, and Fuels Act of 2007. Title II would support energy programs at USDA. This would include reauthorization of energy audit and renewable energy development programs (§ 203), renewable energy systems and energy efficiency programs (§ 204), bioenergy (§ 205), and biomass R&D (§ 206). House bill introduced March 15, 2007; referred to Committees on Agriculture, Education and Labor, and Armed Services. Senate bill introduced March 20, 2007; referred to Committee on Agriculture.

H.R. 1585 (Skelton)/S. 1547 (Levin)

National Defense Authorization Act for Fiscal Year 2008. In both bills, DOD would be allowed to use up to $70 million of its authorized appropriations for energy conservation projects (§ 2402). Under the House bill, Section 2853 would mandate that the Pentagon use high-energy efficiency light bulbs throughout its buildings. Section 2854 would require DOD to increase renewable energy purchases from 9% to 25% of total electricity use by the year 2025. House bill introduced March 20, 2007; referred to Committee on Armed Services. Reported (H.Rept. 110-146) May 11, 2007. Supplemental report (H.Rept. 110-146, pt. 2) filed May 14, 2007. Passed House (397-27) May 17, 2007. Under the Senate bill, DOD would also be authorized to enter into multi-year contracts to purchase electricity from renewable energy sources for a period not to exceed 10 years (§ 826). Senate bill introduced June 5, 2007; referred to Committee on Armed Services. Reported (S.Rept. 110-77). Referred to Committee on Intelligence, June 13, 2007. Committee reported (S.Rept. 110-125) June 29, 2007. Senate incorporated S. 1547 into H.R. 1585 as an amendment in the nature of a substitute. Senate version of H.R. 1585 passed Senate (92-3) October 1, 2007. Conference reported (H.Rept. 110-477) on December 6, 2007. House agreed to conference report (370-49) December 12, 2007. Senate agreed to conference report (90-3) December 14, 2007. Vetoed by the President December 28, 2007. Bill and veto message referred to House Committee on Armed Services January 15, 2008. See H.R. 4986 for further action.

H.R. 1590 (Waxman)

Safe Climate Act of 2007. The level of greenhouse gas (GHG) emissions would be frozen in 2010 and then gradually reduced each year through 2050. EPA would be directed to establish a flexible, economy-wide cap-and-trade emissions reduction program. Further, EPA would be required to set standards for reducing GHG from

motor vehicles that are at least as stringent as the California standards. DOE would be directed to manage a renewable portfolio standard that would increase the share of electricity generated by renewables to 20% in 2020. Further, DOE would be required to set standards requiring utilities to obtain, each year, 1% of their energy supplies through energy efficiency improvements at customer facilities. Also, the National Academy of Sciences would be required to produce a report that recommends additional measures for reducing emissions. Introduced March 20, 2007; referred to Committees on Energy and Commerce and on Foreign Affairs.

H.R. 1591 (Obey)

Emergency Supplemental Appropriations Bill, FY2007. Section 3201 of the Senate-approved version would revise the FY2007 appropriations resolution (P.L. 110-5) to specify that the $1.474 billion for DOE's Office of Energy Efficiency and Renewable Energy (EERE) shall include $22.8 million for geothermal energy and $229.5 million for the Weatherization Program. House Committee on Appropriations reported (H.Rept. 110-60) March 20, 2007. Passed House (218-212) March 23, 2007. Passed Senate with an amendment (51-47) March 29, 2007. House disagreed with Senate amendment and agreed to a conference April 19, 2007. Conference reported (H.Rept. 110-107) April 24, 2007. House agreed to conference report (218-208) April 25, 2007. Senate agreed to conference report (51-46) April 26, 2007. Vetoed by the President May 1, 2007. House failed to override veto (222-203) May 2, 2007.

H.R. 1596 (Ferguson)

Clean and Green Renewable Energy Tax Credit Act of 2007. Section 2 would extend the business investment tax credit for solar and fuel cell equipment from the end of 2008 through the end of 2030. The 30% credit percentage would be in place through the end of 2015, drop to 25% in 2022, and then drop again to 20%. Section 3 would extend the residential solar credit through the end of 2015. Also, the cap would be lifted from $1,000/kw to $1,500/kw. Further, the credit would be allowed to apply against the alternative minimum tax. Section 4 would establish a three-year accelerated depreciation period for business solar and fuel cell equipment. Section 5 would extend the renewable energy production tax credit (PTC) for five years, through the end of 2013. For businesses, Section 6a would establish a 30% investment tax credit for equipment smaller than 100 kw. For home owners, Section 6b would make small wind equipment eligible for the 30% tax credit that currently applies to residential energy efficiency measures. Section 7 would extend the tax credit for residential property for two years, through the end of 2009. Incentives would be established for energy efficiency and renewable energy. Introduced March 20, 2007; referred to Committees on Agriculture, Education and Labor, and Armed Services.

H.R. 1600 (Cardoza)

EAT Healthy America Act. Title VII would require an inventory of specialty crop biomass waste, reauthorize the USDA bioenergy program, and provide grants for development of specialty crop bioenergy projects. Introduced March 29, 2007; referred to Committees on Agriculture, Ways and Means, Education and Labor, Energy and Commerce, and Financial Services.

H.R. 1618 (Camp)

A 10% investment tax credit would be provided for the cost of purchasing a qualified plug-in hybrid vehicle. The credit would end after 2014. Introduced March 21, 2007; referred to Committee on Ways and Means.

H.R. 1705 (Lipinski)

The Bulb Replacement in Government with High-Efficiency Technology (BRIGHT) Act. The Administrator of General Services would be directed to install energy efficient lighting fixtures and bulbs in constructing, altering, and maintaining public buildings. Introduced March 27, 2007; referred to Committee on Transportation and Infrastructure.

H.R. 1716 (McCaul)

Higher education curriculum development and graduate training in advanced energy and green building technologies would be authorized. Introduced March 27, 2007; referred to Committee on Science and Technology. Reported (H.Rept. 110-173) June 5, 2007. Passed House (416-0) June 6, 2007.

H.R. 1728 (Honda)/S. 1389 (Obama)

Global Warming Education Act. Section 4 would establish a national education campaign to disseminate information on and promote implementation of new technologies, programs, and incentives related to energy efficiency and renewable energy. House bill introduced March 29, 2007; referred to Committee on Science and Technology. Senate bill introduced May 14, 2007; referred to Committee on Health, Education, Labor, and Pensions.

H.R. 1766 (Van Hollen)/S. 1346 (Mikulski)

Chesapeake's Healthy and Environmentally Sound Stewardship of Energy and Agriculture Act (CHESSEA) Act of 2007. Section 11 would create, under § 9003 of the Farm Security Act, a program at USDA that provides grants, loans, and loan guarantees for biofuels and biorefineries in Chesapeake Bay Watershed states. A total of $100 million would be provided annually from the Commodity Credit Corporation (CCC) for FY2008 through FY2013. Under authority provided by § 9006 of the Farm Security Act, Section 12 would provide grants and loans for renewable energy and energy efficiency projects, capped at 25% of the project cost. Funding from the CCC would start at $60 million in FY2008 and increase to $250 million in FY2012. Introduced March 29, 2007; referred to Committee on Agriculture.

H.R. 1768 (Gordon)

Federal Stimulus of Commercial Application of Energy Technology Act. Innovative energy technologies derived from federally-sponsored R&D and demonstration programs would be incorporated into Federal buildings. Introduced March 29, 2007; referred to Committee on Science and Technology.

H.R. 1772 (Blumenauer)/S. 673 (Salazar)

Rural Wind Energy Development Act. Investment tax credits would be established for the installation of wind energy property by rural homeowners, farmers, ranchers, and small businesses. House bill introduced March 29, 2007;

referred to Committee on Ways and Means. Senate bill introduced February 16, 2007; referred to Committee on Finance.

H.R. 1821 (McDermott)/H.R. 1965 (Pomeroy)

Clean Renewable Energy for Public Power Act. The rules for clean energy renewable bonds would be modified to remove the $400 million cap for public utilities, redefine "public power entity" to include larger public power systems, and extend the program for five years. Introduced March 29, 2007; referred to Committee on Ways and Means.

H.R. 1838 (Sherman)/S. 838 (Smith)

United States-Israel Energy Cooperation Act. Enhanced cooperation would be focused on renewable energy R&D. DOE's Office of Energy Efficiency and Renewable Energy would be directed to administer a grant program that supports this cooperation and to report on its results. A revolving fund, the Energy Research and Development Activities Fund, would be created at the Department of the Treasury. Also, $20 million per year would be authorized for FY2008 through FY2014. House bill introduced March 29, 2007; referred to Committee on Energy and Commerce. Senate bill introduced March 12, 2007; referred to Committee on Energy and Natural Resources. Incorporated into H.R. 3221 under Title IX, Subtitle D, Part 2 on United States — Israel Energy Cooperation.

H.R. 1888 (Hoekstra)

Cool and Efficient Buildings Act. A 20-year depreciation recovery period, calculated on a straight line basis, would be created for heating, ventilation, air conditioning, or commercial refrigeration systems installed in nonresidential buildings. Introduced April 17, 2007; referred to Committee on Ways and Means.

H.R. 1915 (Castle)/S. 1055 (Biden)

American Automobile Industry Promotion Act of 2007. DOE would be directed to establish a program for research, development, and demonstration (RD&D) and commercial application of innovative electric drive transportation technology (i.e. plug-in hybrid vehicles, plug-in hybrid fuel cell vehicles, engine dominant hybrid vehicles, and fuel cell vehicles). DOE would be required to arrange with the National Academy of Sciences to assess state-of-the-art battery technologies that could be applied to electric drive transportation. Also, DOE would be directed to carry out an Advanced Battery Initiative to support RD&D and commercial application of battery technologies in on-road or non-road vehicles. Requirements for the lean burn vehicle technology credit would be modified. EPA would be empowered to define biodiesel fuel and biodiesel fuel blends, and would be required set standards for each biodiesel blend. House Bill introduced April 18, 2007; referred to Committees on Science and Technology, Ways and Means, and Energy and Commerce. Senate bill introduced March 29, 2007; referred to Committee on Finance.

H.R. 1920 (Inslee)/S. 1151 (Obama)

Health Care for Hybrids Act. A program would be created to provide up to 10% of the health care costs for retired auto industry employees. In exchange, each company would agree to invest half of its reduced costs into R&D, retooling, manufacture, or employee retraining for the use of fuel-efficient and alternative fuel

technologies in its vehicle lines. House bill introduced April 18, 2007; referred to Committees on Ways and Means and Energy and Commerce. Senate bill introduced April 18, 2007; referred to Committee on Finance.

H.R. 1924 (Meek)/S. 411 (Smith)

After 2006, the renewable energy production tax credit (PTC) would be modified to eliminate the reduction in the credit rate for power produced by open-loop biomass, small irrigation power, landfill gas, trash combustion, and hydropower facilities. Thus, the same credit rate would be allowed for all renewable resource facilities covered by the credit. House Bill introduced April 18, 2007; referred to Committee on Ways and Means. Senate bill introduced January 26, 2007; referred to Committee on Finance.

H.R. 1933 (Udall)/ S. 962 (Bingaman)

Department of Energy Carbon Capture and Storage Research, Development, and Demonstration Act of 2007. This bill does not support energy efficiency or renewable energy. However, its provisions for carbon sequestration are a key part of the omnibus energy bills, H.R. 3221 and the Senate version of H.R. 6. DOE would be directed to: (1) carry out fundamental science and engineering research to develop and document new approaches to capture and store carbon dioxide; (2) ensure that fundamental research is appropriately applied to energy technology development activities and the field testing of carbon sequestration activities; (3) promote regional carbon sequestration partnerships to conduct geologic sequestration tests involving carbon dioxide in a variety of geological settings; and (4) conduct at least seven initial large-volume sequestration tests for geological containment of carbon dioxide. Further, DOE would be directed, in making competitive awards, to give preference to proposals from partnerships among industrial, academic, and government entities. House bill introduced April 14, 2007; referred to Committee on Science and Technology. Reported amended (H.Rept. 110-301) August 3, 2007. Senate bill introduced March 22, 2007; referred to Committee on Energy and Natural Resources. Hearing (S. Hrg. 110-83) held April 16, 2007. Incorporated into S. 1321 and then into the Senate-passed version of H.R. 6.

H.R. 1945 (Shays)

Energy For Our Future Act. Section 102 would repeal the limit on the number of new hybrid and advanced lean-burn technology vehicles that would qualify for the alternative motor vehicles manufacturers credit. Also, it would allow a composite energy efficient motor vehicle manufacturing tax credit consisting of an initial investment credit, a fuel economy achievement credit, and an eligible components research and development credit. Section 103 would direct DOT to designate transit-oriented development (TOD) corridors in urban areas, and award grants to state and local governments to for public transit facilities, bicycle facilities, and pedestrian walkways in such a corridor. Section 104 would amend federal transportation law to prescribe phased increases in automobile fuel economy standards. Section 105 would subject sport utility vehicles (SUVs) to the depreciation limit for certain luxury automobiles. Section 106 would require DOT to implement a tire efficiency program. Section 107 would direct DOT to set fuel economy standards for heavy-duty vehicles. Section 201 would double the funding authorization for the DOE weatherization program. Section 202 would authorize funding for the Energy Star Program. Section 203 would extend the renewable

electricity production tax credit (PTC) for five years. It also would extend the investment tax credit for residential energy efficient property for seven years. Section 204 would set energy efficiency resource standards for retail electricity and natural gas suppliers that would reach 3% by 2011. Section 205 would set a federal renewable portfolio standard (RPS) that would start at 1% in 2009 and reach 20% by 2020. Section 206 would make net metering service available from all electric utilities. Title II, Subtitle B, would extend and modify several existing tax incentives for energy efficiency. It would also create some new incentives for efficiency. Section 406 would repeal the federal preemption of state law for automobile fuel economy standards. Title V would authorize funding for several renewable energy R&D programs. Introduced April 19, 2007; referred to Committees on Energy and Commerce, Natural Resources, Science and Technology, Transportation and Infrastructure, and Ways and Means.

H.R. 1954 (Grijalva)

For the renewable electricity production tax credit (PTC), tax benefits would be allocated among multiple owners of a qualified facility. Further, Indian tribal governments would be allowed to transfer the tax benefits other owners. Introduced April 19, 2007; referred to Committee on Ways and Means.

H.R. 1965 (Pomeroy)/H.R. 1821 (McDermott)

For clean renewable energy bonds (CREBs), a limit of $1 billion per year would be set for 2008 and 2009. Of these amounts, the amount available to governments would be limited to $625 million per year. Also, certain modifications would be made to the reimbursement period and amortization structure. Introduced April 19, 2007; referred to Committee on Ways and Means.

H.R. 1977 (Berkley)

The solar and geothermal investment tax credit would be expanded to include public utility property. Introduced April 20, 2007; referred to Committee on Ways and Means.

H.R. 1987 (Jefferson)

The small agri-biodiesel tax credit would be expanded to include biodiesel derived from waste vegetable oils. Introduced April 20, 2007; referred to Committee on Ways and Means.

H.R. 2036 (Inslee)/S. 1511 (Akaka)

Marine and Hydrokinetic Renewable Energy Promotion Act. DOE would be directed to create a marine and hydrokinetic renewable energy R&D program. Section 4 would establish a fund to make loans to projects producing marine and hydrokinetic renewable energy. Section 5 would require programmatic environmental impact statements for deployment in U.S. navigable waters. Section 6 would expand the renewable electricity production tax credit (PTC) to cover this equipment. Section 7 would expand the 30% business investment credit and five-year depreciation to include this equipment. House bill introduced April 25, 2007; referred to Committees on Energy and Commerce, Science and Technology, Ways and Means, and Natural Resources. Senate bill introduced May 24, 2007; referred to Committee on Finance.

H.R. 2037 (Kaptur)

Each state and the District of Columbia would be required to ensure that gasoline contains a specified percentage of renewable fuel. The percentages would be set at 15% after 2014, 25% after 2019, and 30% after 2024. Introduced April 25, 2007; referred to Committees on Energy and Commerce, and Agriculture.

H.R. 2038 (Kind)/S. 1154 (Nelson)

Biogas Production Incentive Act of 2007. A business tax credit for "biogas" production and sales would be established. Eligible biogas must be derived by processing a qualified feedstock — such as livestock manure and other waste material — in an anaerobic digester that contains at least 60% methane and carbon dioxide and trace gases. USDA would be directed to make counter-cyclical payments to qualified biogas producers for facility development. Also, USDA would establish loans, loan guarantees and grants for qualified providers to collect and transport feedstocks to a biogas facility or for equipment and facilities that help collect and transport feedstocks. House bill introduced April 25, 2007; referred to Committees on Ways and Means, and Agriculture. Senate bill introduced April 18, 2007; referred to Committee on Finance.

H.R. 2039 (Levin)

Alternative Fuel Infrastructure Act of 2007. The alternative fuel vehicle refueling property tax credit would be increased from 30%, with a cap at $30,000, to 50%, with a cap at $50,000. Also, the credit termination date would be extended to December 31, 2014. Introduced April 25, 2007; referred to Committee on Ways and Means.

H.R. 2079 (L. Smith)

Plug-In Hybrid Electric Vehicle Act of 2007. DOE would be directed to conduct an R, D, and D program for plug-in hybrid electric vehicles and related advanced vehicle technologies. Also, a competitive grant program would be created to support plug-in hybrid electric vehicle demonstration projects by state and local governments and by regional transportation authorities. Introduced April 30, 2007; referred to Committee on Science and Technology.

H.R. 2082 (Reyes)

Intelligence Authorization Act for Fiscal Year 2008. Section 405 would require the Director of National Intelligence to develop and report to Congress on a plan to implement the recommendations of a specified report concerning the use of energy-efficient computer servers across the U.S. Intelligence Community. Introduced May 1, 2007; referred to Permanent Select Committee on Intelligence. Reported (H.Rept. 110-131) on May 7, 2007. Passed House (225-197) on May 11, 2007. Referred to Senate Select Committee on Intelligence. On October 3, 2007, the Senate substituted the language of S. 1539 passed the bill by Unanimous Consent. Conference report (H.Rept. 110-478) filed December 6, 2007. The House agreed (222-199) to conference report on December 13, 2007. The Senate agreed (51-45) to conference report on February 13, 2008. Vetoed by President on March 8, 2008. Passed House (225-188) without required 2/3 vote on March 11, 2008. The bill and veto message were referred to the Permanent Select Committee on Intelligence and Select Committee on Intelligence on March 11, 2008.

H.R. 2083 (Gordon)/S. 1101 (Lincoln)

The energy efficiency regulatory standard for residential clothes washers would be put into law. The standard for residential dishwashers would by increased by 35% in 2010 and thereafter. The standard for residential dehumidifiers would be increased in 2012 and thereafter. Also, DOE would be directed to set a new standard for refrigerators in a rulemaking that would take effect by 2014. House bill introduced May 1, 2007; referred to Committee on Energy and Commerce. Senate bill introduced April 12, 2007; referred to Committee on Energy and Natural Resources.

H.R. 2112 (Israel)

Purchasing Low-Emission Vehicles for Use in Government (PLUG) Act of 2007. The federal government would be directed to acquire at least 50,000 plug-in hybrid electric vehicles over five fiscal years. Introduced May 2, 2007; referred to Committee on Oversight and Government Reform.

H.R. 2137 (Levin)

Super-Efficient Appliance Incentives and Market Transformation Act of 2007. EPACT (P.L. 109-58) established investment tax credits for manufacturers of certain types of energy efficient appliances. The bill would modify the credit for certain dishwashers, clothes washers, refrigerators, and dehumidifiers produced after 2007. The credit would be capped at $100 million per year. House bill introduced May 3, 2007; referred to Committee on Ways and Means. Senate bill introduced May 24, 2007; referred to Committee on Finance.

H.R. 2144 (DeLauro)

Farm, Nutrition, and Community Investment Act of 2007. Certain farm programs would be reauthorized. Title III contains energy provisions. Funding would be established, extended, or authorized for biomass and biorefinery R&D; regional work on the climate carbon cycle, renewable energy, and climate change programs; the farm and ranch energy efficiency rebate program, and the alternative use for biofuel byproducts program. Also, electric utilities would be required to provide net metering service to farm and rural customers. Introduced May 5, 2007; referred to Committees on Agriculture, Energy and Commerce, Education and Labor, and Ways and Means.

H.R. 2154 (Herseth)

Rural Energy for America Act of 2007. Section 9006 (the renewable energy systems and energy efficiency improvement program) of the 2002 Farm Security Act would be reauthorized through 2012, and it would be renamed as the Rural Energy for America Program (REAP). Rural school districts would be eligible for REAP. REAP would be authorized to provide assistance to those that produce and sell electricity generated by new renewable energy systems. The maximum amount of loan guarantees for most projects would be increased to $25 million. The maximum amount of loan guarantees would be increased to $100 million for projects producing renewable fuels from cellulosic biomass. States and other eligible entities could receive grants to provide rebates to farmers, ranchers, rural school districts, and rural small businesses to purchase renewable energy systems and make energy efficiency improvements. Rebates would be limited to the lower of $10,000 or 50% of the purchase cost. Overall funding authority for REAP would increase from $71 million

in FY2008 to $250 million in FY2012. Introduced May 3, 2007; referred to Committee on Agriculture.

H.R. 2171 (Reyes)/H.R. 2196 (Reyes)

Knowledge Is Power Act. Electric utilities would be required to disclose to consumers, through their periodic billing statements, the percentage mix of energy technologies and fuels used to generate the electricity sold within the distribution utility's distribution area. In describing such mix, each such utility shall disclose the percentage of electricity generated from coal, from gas, from nuclear, from any other fuel, and from any particular type (including solar, wind, biomass, landfill gas, ocean tidal, ocean wave, ocean current, ocean thermal, geothermal, municipal solid waste, or hydroelectric) of renewable energy. H.R. 2171 introduced May 3, 2007; referred to Committee on Energy and Commerce. H.R. 2196 introduced May 7, 2007; referred to Committee on Energy and Commerce.

H.R. 2178 (Walberg)

The Energy Independence Through Bio-diesel Act. Starting five years after enactment, all diesel fuel would be required to contain a minimum of 2% biofuel. Introduced May 3, 2007; referred to Committee on Energy and Commerce.

H.R. 2196 (Reyes)

Knowledge Is Power Act. This bill is identical to H.R. 2171. Introduced May 7, 2007; referred to Committee on Energy and Commerce.

H.R. 2215 (Inslee)

EPA would be directed to establish a low-carbon fuel performance standard for fuels used in motor vehicles. The standard would be expressed as an average over a five-year period. Relative to an EPA-determined baseline, the standard would require greenhouse gas emissions to be reduced by a 3% average over the period from 2015 through 2019. The standard would increased gradually, until it reached 21% for the period from 2045 through 2049. A standard would also be set for aircraft fuel. These standards would also likely have the effect of improving vehicle fuel use efficiency. Introduced May 8, 2007; referred to Committee on Energy and Commerce.

H.R. 2218 (Kaptur)

Biofuels Energy independence Act of 2007. USDA would be authorized to create loan programs and loan guarantee programs to support the development, production, distribution, and storage of biofuels. Also, USDA would be authorized to establish a Biofuels Feedstocks Energy Reserve. Conditions would be set to guide USDA in making purchases to the reserve, releases from the reserve, and storage payments to producers. Introduced May 8, 2007; referred to Committee on Agriculture.

H.R. 2229 (Gordon)

United States-Israel Energy Cooperation Act. A grant program would be established at DOE to fund eligible ventures between the United States and Israel to support R&D and commercialization renewable energy, energy efficiency, and alternative fossil energy sources. (This bill is similar, but not identical, to H.R. 1838

and S. 838.) Introduced May 9, 2007; referred to Committee on Science and Technology.

H.R. 2261 (Lucas)

Rural America Energy Act of 2007. Section 2 would authorize USDA's Commodity Credit Corporation (CCC) to make $25 million in loans for projects involving cellulosic ethanol cogeneration, cellulosic hydrogen for fuel cells, and biomass gasification. Section 3 would increase CCC funding for small renewable energy (§ 9006) projects. Section 4 would extend the renewable energy production tax credit (PTC) for five years, through the end of 2013. Section 5 would authorize $1 million for feasibility studies of a dedicated ethanol pipeline. Section 6 would promote production of biofuels crops. Section 7 would provide transitional assistance to farmers that plant dedicated crops for a cellulosic ethanol refinery. Section 8 would establish a tax credit for wind energy equipment installation by rural home owners, ranchers, farmers, and small businesses. Introduced May 10, 2007; referred to Committees on Agriculture, Ways and Means, Financial Services, and Energy and Commerce.

H.R. 2272 (Gordon)/S. 761 (Reid)

America COMPETES Act of 2007. Section 2005 (Division B) would establish an Advanced Research Projects Authority-Energy (ARPA-E) at DOE. The new Authority would focus on overcoming the "long-term and high-risk technological barriers" in the development of renewable energy, energy efficiency, and other technologies. "Such sums" as necessary would be authorized for each fiscal year from 2008 through 2011. House bill introduced May 10, 2007; referred to Committee on Science and Technology. Passed House by voice vote May 21, 2007. In Senate, S. 761 introduced March 5, 2007. Passed Senate (88-8), amended, April 25, 2007. Senate incorporated S. 761 into H.R. 2272 as an amendment in the nature of a substitute, and passed the Senate version of H.R. 2272 by unanimous consent on July 19, 2007. Conference report filed (H.Rept. 110-289) August 1, 2007. House and Senate agreed to conference report August 2, 2007. Signed by President and became P.L. 110-69 on August 9, 2007.

H.R. 2296 (Garlach)

Future Fuels Act. A tax credit would be made available to eligible manufacturers for production of advanced technology motor vehicles. The fuel economy calculations for manufacturer incentives for dual fueled vehicles would be revised. A schedule would be set for increased the share of alternative fueled or flexible fuel vehicles. An incentive program would be established for insurance providers to sell auto insurance on a per-mile basis. Policies and procedures would be set for testing and labeling tires for fuel economy. Introduced May 14, 2007; referred to Committees on Energy and Commerce, Transportation and Infrastructure, and Ways and Means.

H.R. 2298 (Gordon)/H.R. 2990 (Doggett)

Ground source (geothermal) heat pump systems would become eligible for the business investment tax credit. This credit (IRC section 48[a][3]) is currently available for solar and geothermal equipment. Introduced May 14, 2007; referred to Committee on Ways and Means.

H.R. 2304 (McNerney)

Advanced Geothermal Energy Research and Development Act of 2007. DOE would be instructed to focus R&D and commercial application programs on expanding geothermal energy production from hydrothermal systems. In particular, RD&D and commercial applications would focus on increasing the reliability of site characterizations and cost-shared field demonstrations would be conducted (§ 4). RD&D and commercial application would develop component technology, improve reservoir performance models, and assess environmental impacts (§ 5). RD&D and commercial applications would be employed to enhance geothermal technologies and a collaboration with industry would focus on reservoir stimulation techniques at a variety of different sites (§ 6). A grant program would be created to promote geothermal energy production from oil and gas fields (§ 7). Federal cost share requirements would be set in accordance with Section 988 of EPACT (§ 8). DOE would be directed to award grants to universities and academic consortia to establish two Centers for Geothermal Technology Transfer (§ 9). The Geothermal America program would be created (§ 10). A report to Congress on advanced concepts and technologies would be required (§ 11). A total of $90 million per year would be authorized for FY2008 through FY2012 (§13). Introduced May 14, 2007; referred to Committee on Science and Technology. Reported, amended (H.Rept. 110-203) June 21, 2007. Incorporated into H.R. 3221 as Subtitle C of Title IV on Science and Technology.

H.R. 2305 (Nunes)

Energy Conservation through 'Smart Meters' Act of 2007. A five-year accelerated depreciation recovery period would be established for qualified energy management devices. Introduced May 14, 2007; referred to Committee on Ways and Means.

H.R. 2313 (Hooley)

Marine Renewable Energy Research and Development Act of 2007. R&D, demonstration, and commercial application programs would be established at DOE for marine (tidal, currents, waves, and ocean thermal) renewable energy technologies. Introduced May 15, 2007; referred to Committee on Science and Technology. Reported, amended (H.Rept. 110-203) June 21, 2007. Incorporated into H.R. 3221 as Subtitle B of Title IV on Science and Technology.

H.R. 2337 (Rahall)

Energy Policy Reform and Revitalization Act of 2007. Sections 231through 235 would require wind energy developers to assess and mitigate the impact of turbines on birds and wildlife. Section 307 would establish a pilot program to develop a strategic solar reserve, and would identify and assess potential sites on federal lands for concentrating solar power (CSP) systems. Section 309 would establish a program to use biomass from federal forest lands. Introduced May 16, 2007; referred to Committee on Natural Resources, Committee on Agriculture, and Committee on Science and Technology. Hearing held May 23, 2007. Ordered reported (amended) June 13, 2007. Incorporated into H.R. 3221 as Title VII, Natural Resources Committee Provisions. Reported amended (H.Rept. 110-296, Part I) August 3, 2007.

H.R. 2354 (Visclosky)/S. 133 (Obama)

American Fuels Act of 2007. Section 2 would create an Office of Energy Security in the Executive Office of the President. Section 3 would provide a production tax credit to manufacturers of flexible fuel vehicles. Section 4 would establish a retail sales incentive for alternative fuels. Section 5 would prohibit certain restrictions on the installation of alternative fuel pumps. Section 6 would create an increasing percentage standard for biodiesel, or other alternative diesel fuel, content in diesel fuels. Section 7 would create an excise tax credit for the production of cellulosic ethanol from biomass. Section 8 would establish an incentive for federal and state fleets to use medium- and heavy-duty hybrid vehicles. Section 9 would establish an investment tax credit for qualified ethanol blending and processing equipment. Section 10 would increase public access to alternative fuel refueling stations on federal property. Section 11 would restrict the use of funds in the Mass Transit Account of the Highway Trust Fund to the purchase of clean fuel buses. Section 12 would require the Department of Defense to increase the use of alternative fuels. Section 13 would increase federal requirements for the use of electric vehicles and plug-in hybrid vehicles. Introduced May 16, 2007; referred to Committee on Energy and Commerce, Committee on Ways and Means, Committee on Transportation and Infrastructure, Committee on Armed Services, Committee on Oversight and Government Reform, Committee on Judiciary. Senate bill introduced January 4, 2007; referred to Committee on Finance.

H.R. 2361 (Doggett)

Responsible Renewable Energy Tax Credit Act of 2007. The tax credit for renewable diesel would be disallowed whenever the fuel is produced in part from petroleum, natural gas, or coal feedstocks. Introduced May 17, 2007; referred to Committee on Ways and Means.

H.R. 2372 (DeLauro)

Windfall Energy Alternatives for the Nation (WEAN) Off of Oil Act of 2007. Section 2 would impose a temporary windfall profit tax on crude oil. Section 3 would deposit revenues from the tax into a Strategic Energy Efficiency and Renewables Reserve. Funds from the Reserve would be available to offset (make deficit-neutral) the cost of subsequent legislation to invest in renewable energy and energy efficiency measures. Introduced May 17, 2007; referred to Committees on Ways and Means, on Budget, and on Rules.

H.R. 2389 (Shuler)

Small Energy Efficient Businesses Act. The bill would give small firms that are acquiring or developing energy efficient technologies more flexible loan terms. The Small Business Administration (SBA) would be directed to develop a strategy for educating small firms about energy efficiency. An energy efficiency program would be created to support Small Business Development Centers (SBDCs). Further, the bill aims to spur investment in the production of biofuels and in the development of energy efficient technology by expanding the Small Business Investment Corporation (SBIC) and by increasing investment in small producers. A Renewable Fuel Capital Investment (RFCI) program would also be created to help small firms develop renewable energy sources and new technologies. Introduced May 17, 2007; referred to Committee on Small Business. Hearings held, ordered reported May 23, 2007. Incorporated in H.R. 3221 as Title III on Small Energy Efficient Businesses.

H.R. 2419/S. 2302, House Version (Peterson)

Farm, Nutrition, and Bioenergy Act of 2007. Energy provisions are contained primarily in Title IX. Agricultural-based energy programs established by the Farm Security Act of 2002 would be expanded and continued through FY2012. A total of about $3.2 billion in new funding is proposed including $1.4 billion for biofuels production incentives, $800 million to underwrite up to $2 billion in loan guarantees for biorefineries, $420 million for research on biomass feedstocks and production, and new mandatory funding for a cellulosic biomass feedstock reserve. Most new funding would be directed away from corn-based ethanol and toward cellulosic-based biofuels and other new technologies. Section 2002 would include biobased products composed of at least 5% intermediate ingredients and feedstocks in the procurement preference program set by §9002 of the 2002 Farm Security Act (P.L. 107-171). The U.S. Department of Agriculture (USDA) would be required to issue criteria for determining which products, intermediate ingredients, and feedstocks would qualify for the USDA Certified Biobased Product label. Section 9003 would provide loan guarantees for up to 90% of loans used to help pay for development, construction, and retrofitting of biorefineries and biofuel production plants to demonstrate the commercial viability of converting biomass to fuels or chemicals. Loan guarantees may cover up to $2 billion in loans, split evenly between relatively small plants (up to $100 million) and larger plants ($100 to $250 million). USDA would determine the maximum loan term. Selection criteria for the loans would follow those for the existing grants program in §9003 of the 2002 Farm Act. Further, the level of local ownership would be added as a new selection criteria. Section 9004 would extend the energy audit and renewable energy development program, which requires that USDA make competitive grants to assist farmers, ranchers, and rural small businesses in becoming more energy efficient and in using renewable energy technology and resources. Section 9005 would rename and reauthorize the program in §9006 of the 2002 Farm Act, which makes grants and authorizes loans and loan guarantees to farmers, ranchers, and rural businesses to cover up to 25% of the purchase cost for renewable energy systems and energy efficiency improvements. Funding would be increased from the current $3 million to $50 million in 2008, and then rise to $150 million in 2012. The limit on the maximum amount of the combined loan and grant would increase from 50% to 75% of the total. Also 15% of funds would be reserved for projects that cost $50,000 or less. Section 9006 would modify findings of the Biomass R&D Act of 2000 to include biodiesel; and it would amend the definition of technical study areas to clarify that research areas include sugar processing and refining plants. The current law provision that would authorize an additional annual appropriation of $200 million through 2015 would remain in effect. Section 9007 would amend the program under section 9010 of the 2002 Farm Act, which provides payments that encourage producers to increase purchases of eligible commodities that are used to expand production of bioenergy. Also, it would clarify that — in addition to biodiesel and fuel grade ethanol — the term "bioenergy" would include (a) the production of heat and power from an eligible feedstock at a biofuels plant, (b) biomass gasification, and (c) hydrogen made from cellulosic commodities for fuel cells. Corn starch would be excluded from the list of eligible feedstocks under the program. The funding level would be increased from the current level of $0 for 2007 to $1.5 billion for the period 2008 through 2012. Section 9008 would reauthorize Sun Grants (§9011 of the 2002 Farm Act) to promote research, extension, and education related to biobased energy and product technologies. The current authorization of $75 million per year for 2007 through

2010 would be extended through 2012. Section 9009 would create an Energy Council at USDA to coordinate departmental energy policy and to consult with other agencies. Section 9010 would direct USDA to establish a pilot grant program to help farmers demonstrate the feasibility of making farms energy-neutral using existing technologies. Section 9011 would authorize USDA to make cost-shared grants to enable eligible rural communities to develop renewable energy systems to increase their energy self-sufficiency. Appropriations of $5 million would be authorized in 2008 and such sums as necessary for 2009 through 2012. Section 9012 would encourage students to pursue employment in renewable energy-related jobs. Section 9013 would require USDA to purchase sugar to produce bioenergy, if necessary to avoid forfeitures of sugar to the Commodity Credit Corporation, and to ensure that the sugar loan program is operated at no cost to the federal government. Section 9014 would provide $1 million for feasibility studies for the construction of a dedicated ethanol pipeline; and it would require a report to Congress on the results of such studies. Introduced May 22, 2007; referred to Committees on Agriculture and Foreign Affairs. House Committee on the Agriculture reported (H.Rept. 110-256, Part I) July 23, 2007. House passed, amended, by a vote of 231 to 191, July 27, 2007. Also, the energy provisions of this bill were incorporated into H.R. 3221 as Title V on Agriculture Energy. Passed Senate amended as the "Food and Energy Security Act" (79-14) on December 14, 2007. Conference reported (H.Rept. 110-627) May 13, 2008. House approved (318-106) conference report May 14, 2008. Senate approved (81-15) conference report May 15, 2008. President vetoed on May 21, 2008. Passed House over veto (316-108) May 21, 2008. Passed Senate over veto (82-13) May 22, 2008. Enacted into law (P.L. 110-234) May 22, 2008. (For more details, see CRS Report RL34130, *Renewable Energy Policy in the 2007 Farm Bill*, and CRS Report RL34239, *Biofuels in the 2007 Energy and Farm Bills: A Side-by-Side Comparison.)*

H.R. 2419/S. 2302, Senate Version

Food and Energy Security Act of 2007. This bill would establish several provisions for biofuels, biomass, and bioenergy programs, energy efficiency programs, and other renewable energy policies. Committee on Agriculture, Nutrition, and Forestry reported (S.Rept. 110-220) November 2, 2007. Incorporated into H.R. 2419 as an amendment in the nature of a substitute. The Senate passed (79-14) its version of H.R. 2419 on December 14, 2007. Conference reported (H.Rept. 110-627) May 13, 2008. House approved (318-106) conference report May 14, 2008. Senate approved (81-15) conference report May 15, 2008. (For more details see CRS Report RL34130, *Renewable Energy Policy in the 2007 Farm Bill*, and CRS Report RL34239, *Biofuels in the 2007 Energy and Farm Bills: A Side-by-Side Comparison.).* Conference committee began work April 14, 2008.

H.R. 2420 (Lantos)

International Climate Cooperation Re-engagement Act of 2007. Title I would direct the Administration to resume international climate change negotiations that would subject the U.S. to binding cuts in greenhouse gas emissions. It would also establish an Office on Global Climate Change within the Department of State to be headed by an Ambassador-at-Large for global climate change who would be the United States' chief negotiator in future climate talks. Title II would promote clean and efficient energy technologies in foreign countries, provide assistance to developing countries, provide educational outreach to India and China, expand or

create trade missions to encourage private sector trade and investment in clean energy technologies, and would direct the Agency for International Development to work with developing nations to improve energy efficiency and adopt clean energy technology. Title III would establish the International Clean Energy Foundation to make grants to promote alternative energy technology projects outside of the United States, and would seek contributions from foreign governments to supplement U.S. funding of such projects. Appropriations would be authorized. Introduced May 22, 2007; referred to Committee on Foreign Affairs. Reported (H.Rept. 110-215) June 28, 2007. Incorporated into H.R. 3221 as Title II on the International Climate Cooperation Re-engagement Act of 2007.

H.R. 2426 (Boswell)/S. 859 (Harkin)

Ethanol Infrastructure Expansion Act of 2007. DOE would be required to fund feasibility studies for constructing dedicated ethanol pipelines (§4). Also, DOE would be directed to carry out a program to address technical factors that prevent ethanol transportation in existing pipelines (§5). Funding at $1 million would be authorized for each program (§6). House bill introduced May 22, 2007; referred to Committee on Transportation and Infrastructure. Senate bill introduced March 13, 2007; referred to Committee on Energy and Natural Resources.

H.R. 2428 (Edwards)

Biofuels Research Initiative Act of 2007. A Bio Energy Consortium of universities would be established to coordinate bioenergy and biomass R&D programs. Competitive grants for such R&D would be distributed through regional consortia to land grant universities. A funding level of $50 million would be authorized. Introduced May 22, 2007; referred to Committee on Agriculture.

H.R. 2437 (Israel)

A DOE advisory committee would be established to recommend strategies for energy efficiency and renewable energy finance and investment options. Introduced May 22, 2007; referred to Committee on Energy and Commerce.

H.R. 2441 (Matheson)

Renewable Schools Energy Act of 2007. Interest-free bonds would be provided to public school districts in certain eligible states for the purchase of renewable energy products and systems. Total bonding authority would be $50 million for 2008, $100 million for 2009, and $150 million for 2010. Introduced May 22, 2007; referred to Committee on Ways and Means.

H.R. 2447 (Wynn)

Energy and Environment Block Grant Act of 2007. A program would be established to provide grants to local governments for development and implementation of an Energy Efficiency and Climate Protection Strategy. Funding would be authorized. Introduced May 23, 2007; referred to Committees on Energy and Commerce and on Science and Technology.

H.R. 2454 (Burgess)

Twenty percent biodiesel (B20) fuel blends would be qualified as an alternative fuel for corporate average fuel economy purposes. Introduced May 23, 2007; referred to Committee on Energy and Commerce.

H.R. 2459 (Fossella)

Reduce Individuals' Dependence on Energy Act of 2007 (RIDE Act of 2007). An income tax deduction, capped at $1,320, would be provided to individuals for certain mass public transportation expenses. Introduced May 23, 2007; referred to Committee on Ways and Means.

H.R. 2483 (R. Hall)

Support would be provided for R&D and demonstration on energy technologies to ensure the Nation's continued supply and efficient use of affordable, reliable, and clean energy. Introduced May 24, 2007; referred to Committee on Science and Technology.

H.R. 2496 (Conaway)

Fuel Consumption Education Act. A public-private partnership between DOE and industry groups would be established to create a public education campaign to inform drivers about short term measures that conserve transportation fuel. Introduced May 24, 2007; referred to Committee on Energy and Commerce.

H.R. 2505 (Donnelly)

Promoting the Use of Mixed Petroleum Act or the E85 PUMP Act. The investment tax credit for alternative vehicle refueling property would be extended for five years, from the end of 2008 through the end of 2013. Also, the ceiling on the credit would be increased from 30% to 50% of the equipment cost and the cap would be increased from $30,000 to $50,000. Introduced May 24, 2007; referred to Committee on Ways and Means, and Committee on Judiciary.

H.R. 2513 (J. Hall)

Advertising for any automobile model would be required to show fuel use and fuel cost for that model. Introduced May 24, 2007; referred to Committee on Energy and Commerce.

H.R. 2528 (Markey)/S. 1434 (Pryor)

Federal Building Renewal and Energy Savings Act of 2007. Section 2 would require each federal agency to conduct an energy and water assessment of its buildings and facilities every three years, implement water and energy efficiency saving measures based on the assessment, use a web-based tracking system to certify compliance, and record energy use data into a benchmarking system such as the Energy Star Portfolio Manager. Section 3 would promote federal agency use of energy savings performance contracts (ESPCs) and utility energy service contracts. House bill introduced May 24, 2007; referred to Committee on Energy and Commerce. Senate bill introduced May 12, 2007; referred to Committee on Energy and Natural Resources.

H.R. 2536 (Olver)

HOPE VI Green Building and Technical Assistance Act of 2007. This bill would amend the United States Housing Act of 1937 to prescribe green communities requirements for grant applicants regarding revitalization programs for severely distressed public housing. The Secretary of Housing and Urban Development would be prohibited from approving grants unless the applicant's revitalization plan complies with both mandatory and some nonmandatory criteria found in the national

Green Communities program checklist. Also, the Secretary would be directed to establish verification procedures. Introduced May 24, 2007; referred to Committee on Financial Services.

H.R. 2555 (H. Wilson)

Renewable Energy Credit Extension Act of 2007. Section 2 would extend the electricity production tax credit (PTC) for certain renewable resources for five years, to the end of 2013. Section 3 would allow otherwise unused portions of the credit to be transferred to a third party. Introduced May 24, 2007; referred to Committee on Ways and Means.

H.R. 2556 (H. Wilson)/S. 1321 (Bingaman)

Energy Savings Act of 2007. Title I is the Biofuels for Energy Security and Transportation Act. Subtitle A would extend and increase the Renewable Fuels Standard, starting with 8.5 billion gallons in 2008 and rising to 36 billion gallons in 2022. Starting in 2016, an increasing portion of the requirement would have to be met with advanced biofuels, including cellulosic ethanol, biobutanol, and other fuel derived from unconventional biomass feedstocks. Subtitle B would provide grants for renewable fueling infrastructure, increase the DOE bioenergy R&D funding authorization, establish 11 bioenergy research centers, provide loan guarantees for renewable fuel facilities, provide research grants for states with low rates of ethanol production, provide grants for infrastructure for transportation of biomass to local refineries, establish a biorefinery information center, and establish a national biodiesel fuel quality standard. Title II is the Energy Efficiency Promotion Act. Subtitle A would promote energy efficient lighting technologies and expand certain lighting efficiency standards. Subtitle B would expedite new energy efficiency standards for heating and cooling products and home appliances, provide incentives for the manufacture of energy efficient consumer electronics, and establish an efficiency program for industrial and commercial facilities. Subtitle C would authorize funding for a DOE R&D program on lightweight materials, provide loan guarantees for fuel-efficient auto parts manufacturers, provide incentives for advanced technology automobile manufacturing, authorize awards for qualified investments to refurbish manufacturing facilities that produced advanced technology vehicles, authorize a 10-year R&D program to support the ability of the U.S. to remain globally competitive in global energy storage systems for motor transportation, and authorize a five-year R&D program for electric drive technologies. Subtitle D would set national goals for reducing gasoline usage in transportation, set goals for improving overall energy productivity, authorize funding to educate consumers about how to save energy, and direct modernization of the electricity grid system. Subtitle E would require federal fleets to reduce gasoline usage, increase federal purchase of renewable energy, authorize the Energy-Saving Performance Contracts (ESPCs) program permanently, require federal buildings to reduce energy use, require the identification of federal sites for combined heat and power (CHP), require that fossil energy use in federal buildings be reduced, establish an initiative for energy efficient commercial buildings, and require HUD to update efficiency standards for all public and assisted housing. Subtitle F would increase authorized funding for the DOE Weatherization program, reauthorize the State Energy program, require state utility regulatory commissions to consider federal standards to promote energy efficiency, authorize NREL to provide technical assistance, authorize grants to local governments, authorize grants to universities for

demonstration projects, authorize workforce training programs, and authorize assistance to states to reduce school bus idling. Senate bill introduced May 7, 2007; referred to Committee on Energy and Natural Resources. Reported (S.Rept. 110-65) May 7, 2007. House bill introduced May 24, 2007; referred to Committees on Energy and Commerce, Science and Technology, Transportation and Infrastructure, Oversight and Government, and Financial Services.

H.R. 2557 (Weller)/H.R. 765 (Weller)

The alternative motor vehicle credit would be increased and extended for certain flexible fuel hybrid vehicles. Introduced June 5, 2007; referred to Committee on Ways and Means.

H.R. 2594 (Knollenberg)

Safe and Fuel Efficient Driving Act of 2007. A public relations and education campaign would be established to promote responsible and fuel-efficient driving. Appropriations of $20 million would be authorized for each fiscal year from 2008 through 2012. Introduced June 6, 2007; referred to Committees on Energy and Commerce and on Transportation and Infrastructure.

H.R. 2619 (Johnson)

DOT would be directed to make a grant to an eligible energy-related research organization to establish and operate an ethanol anti-idling power unit research program. Program goals include development of an ethanol-powered solid oxide fuel cell power system and promotion of commercial uses of ethanol fuel cell power systems in vehicles. Introduced June 7, 2007; referred to Committee on Science and Technology.

H.R. 2635 (Waxman)

Carbon-Neutral Government Act of 2007. A goal would be set to make the federal government carbon-neutral by 2050. Title I would require inventories of emissions and opportunities for offsets. Several energy and fuel efficiency policies would be undertaken to meet the goal, including standards for federal fleet emissions (§ 201); green building requirements (§ 204, 205, 206); and agency purchases of energy efficient products (§ 203), alternative fuels (§ 207), and renewable energy (§ 208). Reports on progress would be required (§ 209, 210). Introduced June 7, 2007; referred to Committees on Oversight and Government Reform, Energy and Commerce, Armed Services, Transportation and Infrastructure, Natural Resources, and Agriculture. On June 12, 2007 the House Committee on Oversight and Government Reform ordered reported by voice vote. Incorporated into H.R. 3221 as Title VI on Carbon-Neutral Government.

H.R. 2641 (Visclosky)/S. 1751 (Dorgan)

Energy and Water Development and Related Agencies Appropriations Act, 2008. House bill would provide $1.9 billion for energy efficiency and renewable energy programs, including $200 million for solar energy, $250 million for biomass fuels, $235 million to develop technologies for improved vehicle fuel efficiency, $146 million for research on technologies to increase energy efficiency in buildings, $246 million for weatherization grants, $22 million for research on generating power from water flow, $44 million for research on geothermal energy, and $213 for hydrogen technologies. Reported (H.Rept. 110-185) June 6, 2007. Earmark package

reported (H.Rept. 110-185, Part 2) July 12, 2007. Passed House (312-112) July 17, 2007. Senate bill reported (S.Rept. 110-127) July 9.

H.R. 2642 (Edwards)/S. 1645 (Reed)

Military Construction and Veterans Affairs and Related Agencies Appropriations Act, 2008. Section 409 of the House bill would require all light bulbs purchased with funding from this act to have an EPA "Energy Star" energy efficiency designation. House bill reported (H.Rept. 110-186) June 11, 2007. Passed House (409-2) June 15, 2007. Senate bill reported (S.Rept. 110-85) June 18, 2007. Passed Senate (92-1) September 6, 2007. Senate insists on its amendment, asks for a conference and appoints conferees September 6, 2007. Section 409 was dropped in conference committee.

H.R. 2643 (Dicks)/S. 1696 (Feinstein)

Department of the Interior, Environment, and Related Agencies Appropriations Act, 2008. Section 603 of the House bill would require all light bulbs purchased with funding from this act to have either EPA "Energy Star" or Federal Energy Management Program (FEMP) energy efficiency designation. House bill reported (H.Rept. 110-187) June 11, 2007. Earmark package reported (H.Rept. 110-187, Part 2) June 22, 2007. Passed House (272-155) June 27, 2007. Senate bill reported (S.Rept. 110-91) June 26, 2007.

H.R. 2652 (English)

Generating Renewable Energy and Encouraging Novel Technologies Act of 2007. Title I would extend several investment tax credits for renewable energy and set an accelerated cost recovery period for transmission and distribution equipment. Title II would extend the PTC for nine years and expand it to include tidal, wave, and ocean thermal energy. Title III would extend some alternative fuel tax credits and establish a new investment tax credit for cellulosic ethanol plant property. Title IV would extend and modify incentives for business solar equipment, appliances, and energy efficient commercial buildings. Introduced June 11, 2007; referred to Committee on Ways and Means.

H.R. 2656 (Mahoney)

American Farm Improvement Act of 2007. Section 201 amends previous Acts to harmonize specified definitions, including "biomass," "renewable biomass," "cellulosic biomass," and "cellulosic feedstock." Section 202 guarantee loans made by private institutions for construction of facilities to process and convert cellulosic biomass materials into alcohol-based fuels, bio-fuels, or other commercial products. Section 203 makes grants, loans, and loan guarantees to farm owners and tenants for the purchase and installation of equipment and the construction of facilities for processing animal wastes and byproducts into liquid fuel, energy, and other commercial products. Section 204 includes the production of crops grown for cellulosic feedstock and biomass in the biomass research and development initiative. Introduced June 11, 2007; referred to Committees on Agriculture, Energy and Commerce, and Science and Technology.

H.R. 2691 (Walz)

Incentives for wind facilities that produce electricity would be expanded. Section 1 would create a partial exemption from passive activity. Section 2 would

allow the PTC to be allowed against the alternative minimum tax. Introduced June 12, 2007; referred to Committee on Ways and Means.

H.R. 2701 (Oberstar)

Transportation Energy Security and Climate Change Mitigation Act of 2007. Energy efficient transportation and public buildings would be promoted, including incentives for the use of alternative fuel vehicles and renewable energy. Title I would establish a Center for Climate Change and Environment at the DOT that would address strategies for reducing transportation-related energy use. Title II would provide grants for public transit, enhance commuter rail transit, and increase the federal share for congestion mitigation (CMAQ) projects. Title III would create a green locomotive grant program. Title IV would establish a green ports initiative. Title V would create a CLEEN engine and airframe technology partnership. Title VI (Subtitle A) would set minimum energy performance standards for energy efficiency and renewable energy use in GSA buildings (§ 601), extend the basis for building life-cycle energy use from 25 years to 40 years (§ 602), and would require that a photovoltaic system be installed at DOE's headquarters building (§ 603). Title VI (Subtitle C) would require the Architect of the Capitol to conduct a feasibility study for a solar photovoltaic roof installation (§ 651), establish an E-85 refueling station for the Capitol complex (§ 652), and require that energy efficiency measures be included in the Capitol complex master plan. Introduced June 13, 2007; referred to Committee on Transportation and Infrastructure. Ordered reported (amended) June 20, 2007. Incorporated into H.R. 3221 as Title VIII on Transportation and Infrastructure.

H.R. 2742 (Arcuri)

The renewable energy production tax credit (PTC) would be modified to provide incentive rate parity for open-loop and closed-loop biomass facilities. Introduced June 15, 2007; referred to Committee on Ways and Means.

H.R. 2751 (Harman)

Leveraging Innovative Gains in High-efficiency Technology (LIGHT) Bulbs Act. The sale of certain light bulbs would be prohibited, namely those that emit less than (1) 25 lumens per watt, effective January 1, 2010, and (2) 60 lumens per watt, effective January 1, 2015. Exemptions would be allowed in certain cases, and civil penalties would be set for violations. Incentives would be provided for domestic production of more efficient light bulbs. Introduced Jun 15, 2007; referred to Committee on Energy and Commerce.

H.R. 2752 (Lampson)

Market Incentives for Biobased Products Act of 2007. The Farm Security and Rural Investment Act of 2002 would be amended to revise labeling requirements for federal procurement of biobased products. Introduced June 15, 2007; referred to Committees on Agriculture, and Oversight and Government Reform.

H.R. 2763 (Lampson)/H.R. 2773 (Lampson)

Biofuels Research and Development Enhancement Act. Would establish an information center on research, development and commercial application of technologies related to biofuels and biorefineries. Would provide grants for biofuels R&D and commercial applications in states that have low rates of ethanol production.

H.R. 2763 introduced June 18, 2007; referred to Committees on Energy and Commerce, and Science and Technology. H.R. 2773 introduced June 19, 2007; referred to Committee on Science and Technology. Ordered reported June 22, 2007. Incorporated into H.R. 3221 as Subtitle E of Title IV on Science and Technology.

H.R. 2764 (Lowey)

Department of State, Foreign Operations and Related Programs Appropriations Act, 2008. Title II of the House-passed version would specify that at least 10% of the aggregate loan, guarantee, and insurance authority available to the Export-Import Bank under this or any prior Act should be used for renewable energy and environmentally beneficial products and services. Section 633(b) would allow funds for embassy construction and certain programs to be used to support "energy programs aimed at reducing greenhouse gas emissions." Section 691(a) requires that at least $501 million of the funds under "Development Assistance" would be available for programs that directly "protect biodiversity and promote clean energy." Section 691(b) would require a report on climate change activities that includes an accounting of all expenditures used to promote transfer and deployment of "U.S. clean energy and energy efficiency technologies." Section 699H would require all light bulbs purchased with funding from this act to have either EPA "Energy Star" or Federal Energy Management Program (FEMP) energy efficiency designation. In the Senate version, under Title III provisions for the U.S. Agency for International Development (AID) Program for Environment and Energy Conservation, the Senate Appropriations Committee report states that at least "$195 million from all accounts in this act to support policies and programs in developing countries that promote energy efficiency, renewable energy, and cleaner energy technologies, including $15 million for USAID's Office of Energy and Information Technology." The funding would apply to small hydro, solar, and wind projects, particularly in areas where other sources of energy are not available. Also, U.S. agencies would be expected to "continue to participate in the nine-agency Clean Energy Technology Exports Initiative." House version reported (H.Rept. 110-197) July 13, 2007. Passed House by vote of 241-178 on July 19, 2007. Senate version reported (S.Rept. 110-128) July 10, 2007. Passed Senate with amendment (81-12) September 6, 2007. Signed by President and became public law (P.L. 110-161) on December 26, 2007.

H.R. 2767 (Weller)

A nonrefundable tax credit of $15 would be provided for the purchase of energy efficient tires. Also, DOT would be required to establish an energy efficient tire rating program. Introduced June 18, 2007; referred to Committees on Ways and Means and on Energy and Commerce.

H.R. 2771 (Wasserman-Shultz)/S. 1686 (Landrieu)

Legislative Branch Appropriations Act, 2008. Section 104 of the House bill would make "energy conservation" activities eligible for support under the revolving loan fund. Section 209 would require all light bulbs purchased with funding from this act to have either EPA "Energy Star" or Federal Energy Management Program (FEMP) energy efficiency designation. House bill reported (H.Rept. 110-198) June 19, 2007. Passed House by vote of 216-176 on June 22, 2007. Senate bill reported (S.Rept. 110-89) June 25, 2007.

H.R. 2773 (Lampson)/ H.R. 2763 (Lampson)

Biofuels Research and Development Enhancement Act. The bill aims to improve information about federal biofuels research programs, focus research on infrastructure and biorefineries, study potential impacts of increased biofuels use, and increase authorized funding for DOE biofuels research. An authorization of $25 million would be created to provide grants for biofuels R&D and commercial applications in states that have low rates of ethanol production. H.R. 2763 introduced June 18, 2007; referred to Committees on Energy and Commerce, and Science and Technology. H.R. 2773 introduced June 19, 2007; referred to Committee on Science and Technology. Ordered reported June 22, 2007. Incorporated into H.R. 3221 as Subtitle E of Title IV on Science and Technology.

H.R. 2774 (Giffords)

Solar Energy Research and Advancement Act of 2007. A DOE program of thermal energy storage R&D would be required to conduct studies on integrating concentrating solar power into regional electricity transmission systems. A total authorization of $43 million would be provided, spread over five years. Introduced June 19, 2007; referred to Committee on Science and Technology. Incorporated into H.R. 3221 as Subtitle D of Title IV on Science and Technology. Reported amended (H.Rept. 110-303) August 3, 2007.

H.R. 2776 (Rangel)

Renewable Energy and Energy Conservation Tax Act of 2007. Title I addresses production incentives. The renewable electricity production tax credit (PTC) would be extended for four years, through the end of 2012 (§ 101). The PTC would be extended to cover facilities that produce electricity from waves, tides, and other marine resources (§ 102). The business investment tax credit for solar energy and fuel cell equipment would be modified and extended for eight years, through the end of 2016 (§ 103). A total of $2 billion in new clean renewable energy tax credit bonds would be made available (§ 104) For the residential solar and fuel cell investment tax credit, the dollar limit would be repealed and the allowance against the alternative minimum tax would be repealed. Title II (Subtitle A) addresses fuels and transportation incentives. A new tax credit would be established for qualified plug-in hybrid vehicles, capped at $4,000, plus $2,000 for certain batteries, and subject to a manufacturer production run limit of 60,000 vehicles (§ 201). The alternative refueling property credit would be extended for one year, through the end of 2010, and increased to 50% with a cap of $50,000 (§ 202). The biodiesel production tax credit and the renewable diesel tax credit would be extended for two years, through the end of 2010 (§ 203). A new 50 cent per gallon credit would be established for cellulosic ethanol production (§ 204). Employer transportation fringe benefits options would be extended to include $20 per month for bicycle commuting (§ 205). Title II (Subtitle B) addresses other energy efficiency incentives. New energy conservation bonds would be created to support energy efficiency, renewable energy, mass transit, and other measures that reduce greenhouse gas emissions (§ 211). Bonds could be issued by state governments, local governments, and American Indian tribes. The program would be capped at $3.6 billion. New energy efficiency assistance bonds would be created to provide States with funds for loans and grants to consumers for energy-efficiency property and home improvements (§ 212). The tax deduction for construction of energy-efficient commercial buildings would be extended (§ 213). The manufacturers credit for energy efficient appliances would be

modified (§ 214), and a five-year depreciation period would be applied to certain energy management devices (§ 215). Title III would establish sources for revenue offsets. Introduced June 19, 2007; referred to Committee on Ways and Means. Reported (H.Rept. 110-214) June 27, 2007. Brought to House floor August 4, 2007. Approved by a vote of 221 to 189. Incorporated into H.R. 3221 as "Division B."

H.R. 2798 (Sherman)

Overseas Private Investment Corporation (OPIC) Reauthorization Act of 2007. OPIC would be directed to establish a goal to increase its support for projects that use, develop, or otherwise promote clean energy technologies over a four-year period. Introduced June 20, 2007; referred to Committee on Foreign Affairs. Ordered to be reported June 26, 2007. Passed House by voice vote on July 23, 2007.

H.R. 2809 (Inslee)

New Apollo Energy Act of 2007. A broad range of energy efficiency and renewable energy measures would be established with goals for increasing manufacturing jobs, reducing foreign oil dependence, and address climate change. Section 441 would create a renewable electricity portfolio standard that reaches 20% by 2020. Subtitle C of Title VI would direct the Export-Import Bank to increase support for renewable energy equipment exports. Title VIII would establish sources for revenue offsets. Introduced June 21, 2007; referred to Committee on Energy and Commerce.

H.R. 2810 (Jefferson)

A production tax credit would be established for biomethane generated from biomass. The credit would be equivalent (3,412 Btu's of biomethane equals 1 kilowatt-hour of electricity) in monetary amount and years of duration to the renewable electricity production tax credit (PTC). Introduced June 21, 2007; referred to Committee on Ways and Means.

H.R. 2838 (Faleomavaega)

Insular Areas Energy Act of 2007. DOE's Innovative Technology Loan Guarantee Program (EPACT Title 17) would be permitted to apply to federal installations worldwide, including the U.S. Insular Areas and nations in free association with the United States. Also, loans would be authorized for ocean thermal energy conversion projects. Introduced June 22, 2007; referred to Committees on Energy and Commerce and on Science and Technology.

H.R. 2847 (Solis)

Green Jobs Act of 2007. The Workforce Investment Act of 1998 would be amended to establish an energy efficiency and renewable energy worker training program. Specifically, the bill would authorize up to $125 million in funding to establish national and state job training programs, administered by the U.S. Department of Labor, to help address job shortages that are impairing growth in green industries, such as energy efficient buildings and construction, renewable electric power, energy efficient vehicles, and biofuels development. Introduced June 25, 2007; referred to Committee on Education and Labor. Reported, amended (H.Rept. 110-262) July 27, 2007. Incorporated into H.R. 3221 as Title I on Green Jobs.

H.R. 2848 (Cardoza)/S. 1016 (Menendez)

Solar Opportunity and Local Access Rights Act. Energy independence and self-sufficiency would be promoted by providing for net metering by certain small electric energy generation systems. Introduced June 25, 2007; referred to Committees on Energy and Commerce, Science and Technology, Oversight and Government Reform, and Financial Services.

H.R. 2857 (McCarthy)

Generations Invigorating Volunteerism and Education Act. Introduced June 26, 2007; referred to Committee on Education and Labor. In House floor action on March 6, 2008, H.Amdt. 969 was adopted (252-161), which would create an Energy Conservation Corps under the Corporation for National and Community Service.

H.R. 2858 (Terry)

Amends the Petroleum Marketing Practices Act to prohibit a franchisor from restricting a franchisee from (1) installing on the marketing premises a renewable fuel pump or tank; (2) converting an existing tank or pump for renewable fuel use; (3) advertising the sale of renewable fuel; (4) selling renewable fuel; (5) purchasing renewable fuel from sources other than the franchisor if the franchisor does not offer its own renewable fuel for sale by the franchisee; (6) listing renewable fuel availability or prices; or (7) allowing for payment of renewable fuel with a credit card. Allows such franchisee activities so long as they do not constitute willful adulteration, mislabeling, or misbranding of motor fuels or other trademark violations. Instructs the Secretary of Energy to establish a grants program for universities to demonstrate replacing corn as an ethanol feedstock with sweet sorghum. Amends the Clean Air Act and the Energy Policy Act of 2005 to provide for loan guarantees for closed loop ethanol commercial demonstration projects. Amends the Internal Revenue Code to: (1) increase and extend the alternative fuel vehicle refueling property credit; (2) make refueling property for biodiesel and renewable biodiesel eligible for the income tax deduction for clean-fuel vehicles and certain refueling property; and (3) increase the credit amount for research relating to alternative and renewable energy processes. Introduced June 26, 2007; referred to Committees on Energy and Commerce, Science and Technology, and Ways and Means.

H.R. 2867 (McHenry)

Independence Prize Act of 2007. DOE would be authorized to establish a program for making prizes for advanced technologies for the production, consumption, and distribution of non-petroleum-based alternative energy and energy efficiency. Introduced June 26, 2007; referred to Committee on Science and Technology.

H.R. 2881 (Oberstar)

FAA Reauthorization Act of 2007. A CLEEN Energy Partnership would be directed to lower the energy-related emissions of engine and airframe technology (§505). FAA would be directed to pursue energy efficiency in the design of new airport facilities (§509). FAA would be directed to undertake a study on feasibility for web-based information about the safety of siting windfarms near aviation facilities (§825). NRC would be directed to review of FAA energy research programs (§912). Introduced June 27, 2007; referred to Committee on

Transportation and Infrastructure. Reported (H.Rept. 110-331) September 27, 2007. Passed House September 20, 2007. In Senate, cloture motion presented May 1, 2008. Cloture motion withdrawn by unanimous consent in Senate May 6, 2008.

H.R. 2890 (L. Smith)

Solar Utilization Now (SUN) Demonstration Act of 2007. A program of grants to the states would be established. States would be empowered to award competitive grants for advanced photovoltaic technology the demonstration in commercial, industrial, institutional, governmental, and residential sectors. Introduced June 27, 2007; referred to Committee on Science and Technology.

H.R. 2927 (Hill)

The combined corporate average fuel economy (CAFE) standards for cars and light trucks would be increased to a range from 32 to 35 mpg by 2022. Also, the domestic development and production of advanced technology vehicles would be promoted. Introduced June 28, 2007; referred to Committee on Energy and Commerce.

H.R. 2947 (Udall)

Energy Efficient Buildings Promotion Act. Energy performance standards would be established for new federal and federally supported buildings. The standards would also apply to major building renovations. Introduced June 28, 2007; referred to Committees on Energy and Commerce, Science and Technology, Transportation and Infrastructure, and Ways and Means.

H.R. 2950 (H. Wilson)

Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007. This broad energy policy bill has many provisions for efficiency and renewables. Title I on biofuels would increase the renewable fuel standard (RFS) to 8.5 billion gallons in 2008, rising to 36 billion gallons by 2022. Title II on energy efficiency promotion parallels S. 1419, with provisions for lighting, equipment standards, high efficiency vehicles, federal agencies, state and local governments, and marine energy resources. Title III would establish a broad range of measures for public buildings. Title V would set a new combined vehicle CAFE standard of 35 mpg by 2020. Title IX would establish a renewable portfolio standard of 3.75% in 2010, rising to 15% by 2020. Introduced June 28, 2007; referred to Committees on Energy and Commerce, Science and Technology, Education and Labor, Transportation and Infrastructure, Natural Resources, Oversight and Government Reform, Financial Services, Foreign Affairs, Small Business, Judiciary, Armed Services, Intelligence, and Agriculture.

H.R. 2966 (Markey)

Plug-in Hybrid Opportunity Act of 2007. A tax credit would be established for 35% of the cost of a qualified plug-in battery module or $4,000 (whichever is less) to convert a hybrid motor vehicle to a plug-in hybrid vehicle. The tax credit would expire at the end of 2010. Introduced July 10, 2007; referred to the Committee on Ways and Means.

H.R. 2990 (Doggett)/H.R. 2298 (Gordon)

Geothermal heat pump systems would become eligible for the energy tax credit and the residential energy efficient property tax credit. Introduced July 11, 2007; referred to Committee on Ways and Means.

H.R. 3021 (Chandler)

21st Century High-Performing Public School Facilities Act. The Department of Education would establish a matching grant program to help local educational agencies construct, modernize, and/or repair K-12 school facilities. Energy efficiency improvements for existing school facilities, and for the construction of new school facilities, would be one allowable use for the grants. The bill would authorize $6.4 billion in FY2009 for public school modernization and renovation related to energy efficiency. H.Amdt. 1071 (adopted 409-5) would allow funding to be used for renewable energy generation and heating systems, such as solar, photovoltaic, wind, geothermal, biomass, and wood pellet systems. Introduced July 12, 2007; referred to Committee on Education and Labor. Reported (H.Rept. 110-623) May 8, 2008. Statement of Administration Policy issued June 3, 2008, threatening to veto the bill. Brought to House floor June 4, 2008. Passed House, amended, June 4, 2008.

H.R. 3031 (Inslee)

Advanced Design in Energy for Living Efficiently Act of 2007. A program would be established to create and distribute information about green building design. Criteria would be established for education and training of architects, engineers, and developers in green building design and application. A blue ribbon panel would be selected to provide advice and counsel to the EPA Administrator on policy issues related to energy conservation in buildings and green building design. Standards would be set for construction of new buildings to reduce carbon emissions. A study would be required of the use of FHA energy efficient mortgages. Grants would be established to help state educational agencies promote energy efficiency in school buildings, block grants would be provided to States to renovate buildings, and loan guarantees would be provided for institutions of higher education. The tax deduction for energy efficient commercial buildings would be increased and extended. Introduced July 12, 2007; referred to Committees on Energy and Commerce, Transportation and Infrastructure, Education and Labor, Oversight and Government Reform, Financial Services, and Ways and Means.

H.R. 3043 (Obey)/S. 1710 (Harkin)

Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act, 2008. Section 530 of the House bill would require all light bulbs purchased with funding from this act to have an EPA "Energy Star" energy efficiency designation. House bill reported (H.Rept. 110-231) July 13, 2007. Passed House (276-140) July 19, 2007. Senate bill reported (S.Rept. 110-107) June 27, 2007. Passed Senate with an amendment (75-19), October 23, 2007. House agreed to a conference October 31, 2007. Conference report (H.Rept. 110-424) filed November 5, 2007. House agreed to conference report (269-142) November 6, 2007. Conference report considered in Senate, which recedes from its amendment and replaces it with an amendment (SA 3557) (56-37), message on Senate action sent to the House November 7, 2007. House agree to the Senate amendment (274-141), bill

presented to the President November 8, 2007. Vetoed by President November 13, 2007. House failed to override veto (2/3 required) (277-141) November 15, 2007.

H.R. 3044 (McHugh)

Agrofuel Rural Energy Empowerment Act. Loans, loan guarantees, and grants would be made available to farmers, ranchers, and rural small businesses for the use of anaerobic digesters to produce renewable energy. The use of anaerobic digesters would be promoted to improve environmental quality at animal waste management facilities. Introduced July 13, 2007; referred to Committee on Agriculture.

H.R. 3059 (Barton)

Section 1 would increase Corporate Average Fuel Economy (CAFE) standards to 35 miles per gallon for passenger cars and 27.5 miles per gallon for light trucks, including SUVs, by 2022. Section 2 would allow a manufacturer to transfer CAFE credits to other compliance categories within the overall fleet. Section 3 would direct DOT to establish a partnership with industry, public interest, and consumer groups to establish a public education campaign about measures to conserve transportation fuel. Introduced July 17, 2007; referred to Committee on Energy and Commerce.

H.R. 3072 (Udall)/S. 1797 (Salazar)

Colorado Forest Management Improvement Act of 2007. Section 103 of this bill would authorize the Biomass Commercial Utilization Grant Program, allowing the Secretary of Agriculture to provide annual grants to owners or operators of facilities using biomass to offset the costs of purchasing biomass. The Secretary may also exercise authority from this section in conjunction with, or in addition to, any other authority of the Secretary to support or stimulate the use of biomass fuel. Section 301 would extend the tax credit for electricity produced using open-loop biomass to facilities placed in service before January 1, 2030, and to make electricity produced and sold at qualified open-loop biomass facilities eligible for the full credit rate. House bill introduced July 17, 2007; referred to Committees on Natural Resources, Agriculture, Ways and Means, Transportation and Infrastructure, and Science and Technology. Senate bill introduced 17, 2007; referred to the Committee on Finance.

H.R. 3074 (Olver)/S. 1789 (Murray)

Departments of Transportation, and Housing and Urban Development, and Related Agencies Appropriations Act, 2008. Section 164 of the House-passed bill would require each Federal Transit Administration grant for a new or rehabilitated public transit bus to include full support for it to be outfitted as a hybrid-electric bus. Section 413 would require all light bulbs purchased with funding from this act to have an EPA "Energy Star" or Federal Energy Management Program (FEMP) energy efficiency designation. Section 227 of the Senate bill would allow certain HUD-related contracts to be extended for eight years in order to make energy efficiency improvements. House bill reported (H.Rept. 110-238) July 18, 2007. Passed House (268-153) July 24, 2007. Senate bill reported (S.Rept. 110-131) July 16, 2007. Senate passed H.R. 3074 with an amendment (88-7), requests a conference September 12, 2007. House agrees to a conference November 8, 2007. Conference report H.Rept. 110-446 filed November 13, 2007. House agreed to conference report (270-147) November 14, 2007.

H.R. 3089 (Thornberry)

No More Excuses Energy Act of 2007. Section 201 would extend the renewable energy production tax credit (PTC) for 10 years, through the end of 2018. Introduced July 18, 2007; referred to Committees on Natural Resources, Ways and Means, and Energy and Commerce.

H.R. 3101 (Shea-Porter)

The Biomass Research and Development Act of 2000 would be modified to include "heating fuel" produced from biomass in the definition of biobased fuel. Introduced July 19, 2007; referred to Committees on Agriculture, and on Science and Technology.

H.R. 3105 (Faleomavaega)

Ocean Thermal Energy Tax and Energy Credits Act of 2007. Under Section 2, the renewable energy electricity production tax credit (PTC) would be expanded to include ocean thermal energy facilities. Under Section 3, the business energy investment tax credit would be expanded to include ocean thermal energy projects. Introduced July 19, 2007; referred to Committee on Ways and Means.

H.R. 3107 (Hodes)/S. 1697 (Sununu)

Renewable Energy Tax Parity Act of 2007. A tax credit for residential biomass fuel property expenditures would be established. The equipment must have a thermal efficiency of 75% or higher, and the credit would be capped at $2,000. House bill introduced July 19, 2007; referred to Committee on Ways and Means. Senate bill introduced June 26, 2007; referred to Committee on Finance.

H.R. 3117 (Terry)

Federal agencies would be required to install at least one renewable fuel pump at each federal fleet fueling center by January 1, 2010. The President would be required to report to Congress annually on agency compliance. Introduced July 19, 2007; referred to Committee on Oversight and Government Reform.

H.R. 3118 (Terry)

Amends the Petroleum Marketing Practices Act to prohibit a franchisor from restricting a franchisee from (1) installing on the marketing premises a renewable fuel pump or tank; (2) converting an existing tank or pump for renewable fuel use; (3) advertising the sale of renewable fuel; (4) selling renewable fuel; (5) purchasing renewable fuel from sources other than the franchisor if the franchisor does not offer its own renewable fuel for sale by the franchisee; (6) listing renewable fuel availability or prices; or (7) allowing for payment of renewable fuel with a credit card. Allows such franchisee activities so long as they do not constitute willful adulteration, mislabeling, or misbranding of motor fuels or other trademark violations. Instructs the Secretary of Energy to establish a grants program for universities to demonstrate replacing corn as an ethanol feedstock with sweet sorghum. Amends the Clean Air Act and the Energy Policy Act of 2005 to provide for loan guarantees for closed loop ethanol commercial demonstration projects. Amends the Internal Revenue Code to: (1) increase and extend the alternative fuel vehicle refueling property credit; (2) make refueling property for biodiesel and renewable biodiesel eligible for the income tax deduction for clean-fuel vehicles and certain refueling property; and (3) increase the credit amount for research relating to

alternative and renewable energy processes. Introduced July 19, 2007; referred to Committees on Energy and Commerce, Science and Technology, and Ways and Means.

H.R. 3161 (DeLauro)/S. 1859 (Kohl)

Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2008. The House bill provides nearly double the FY2007 funding and more than 20% more than the request. It includes resources for research, assistance to farmers and ranchers, and loans to businesses. For the Rural Community Advancement Program, the bill recommends $350 million for biomass and renewable energy loan guarantees. For the Renewable Energy Program, the bill includes $46 million for grants and loans. This is $23 million more than the FY2007 appropriation and $12.1 million more than the request. The Senate bill recommends $28.5 million for the Renewable Energy Program. House bill reported (H.Rept. 110-258) July 24, 2007. Senate bill reported (S.Rept. 110-134) July 24, 2007. Passed House by vote of 237 to 18 on August 2, 2007.

H.R. 3197 (Holt)

School Building Enhancement Act. The Secretary of Education would be directed to provide grants to State and local educational agencies for Energy Smart schools and Energy Star programs. Introduced July 27, 2007; referred to Committee on Education and Labor.

H.R. 3207 (Boustany)

Energy Security and Foreign Policy Integration Act of 2007. Section 3 would establish a Directorate of Energy within the National Security Council. One responsibility of this directorate would be to develop strategies for reducing United States dependence on foreign sources of energy, including demand reduction, efficiency improvement, and development of alternative and new sources of domestic energy. Introduced July 27, 2007; referred to Committees on Armed Services, Foreign Affairs, Intelligence (Permanent Select), and Energy and Commerce.

H.R. 3221 (Pelosi)

New Direction for Energy Independence, National Security, and Consumer Protection Act. This omnibus bill includes nine titles that cover a broad array of provisions. It represents the integration of several bills that include a draft bill by Committee on Energy and Commerce along with H.R. 364, H.R. 2304, H.R. 2313, H.R. 2337, H.R. 2389, H.R. 2420, H.R. 2635, H.R. 2701, H.R. 2773, H.R. 2774, H.R. 2776, and H.R. 2847. A floor amendment (H.Amdt. 748) to create a 15% renewable energy portfolio standard (RPS) was adopted by a vote of 220 to 190. The tax provisions were collected in H.R. 2776, which included a four-year extension of the renewable electricity production tax credit and several other efficiency and renewables incentives. H.R. 2776 was approved by a vote of 221 to 189; then it was incorporated into H.R. 3221. Introduced July 30, 2007; brought to House floor August 4, 2007. Passed House, amended, August 4, 2007. For further action on the omnibus energy policy bill, see H.R. 6. On February 28, 2007, in Senate floor action on a motion to proceed to the bill, a cloture motion failed (48-46). The bill was intended to serve as a vehicle for a housing stimulus measure (S. 2636). S.Amdt. 4387, an amendment in the nature of a substitute, was introduced on April 4, 2008. It was designed to strip out all House language, substitute housing legislation, and

change the title to the "Foreclosure Prevention Act of 2008." The second degree amendment, S.Amdt. 4419, was agreed to (88-8), incorporating the "Clean Energy Tax Stimulus Act" provisions of S. 2821 into S.Amdt. 4387 as Title X. Those provisions would extend the PTC for one year, business solar ITC for eight years, and the residential solar ITC for one year. It would establish $400 million in CREBs. Several energy efficiency credits would also be extended. (More details are provided under the description of S. 2821). On April 10, 2008, S.Amdt. 4387 was adopted by unanimous consent and the Senate adopted its amended version of H.R. 3221 (84-12).

H.R. 3226 (DeLauro)

New Opportunities for Fuel Efficient Fleets Act. States would be encouraged to acquire hybrid motor vehicles to satisfy fleet acquisition requirements, when publicly available fueling facilities that dispense E85 fuel are not convenient or accessible in the State. Introduced July 30, 2007; referred to Committee on Energy and Commerce.

H.R. 3236 (Boucher)

Energy Efficiency Improvement Act of 2007. This bill would amend the Energy Policy and Conservation Act to: revise provisions that set energy standards, including standards for specified appliances, boilers, motors, and external power supplies; provide procedures to amend and make standards; and set forth provisions concerning lighting efficiency. This bill would also amend the Energy Conservation and Production Act to: support updating national model building energy codes and standards; establish standards for energy efficiency in manufactured housing; authorize funding for weatherization assistance for low-income persons for FY2008-FY2012; and authorize the Secretary of Energy to initiate an Alternate Delivery System Pilot Program to examine options for decreasing energy consumption associated with heating and cooling. The Secretary would be required to establish an Office of High-Performance Green Buildings (OHPGB) within the Office of Energy Efficiency and Renewable Energy and appoint a Director. The Director's duties would include establishing green practices for federal facilities, developing strategies to reduce commercial building energy use, and establish a clearinghouse. H.R. 3236 would amend the National Energy Conservation Act to require federal agencies to designate energy managers to carry out energy and water evaluations of covered facilities and require the Director of the Office of Management and Budget (OMB) to issue scorecards for federal energy management activities. The OHPGB Director would be required to establish demonstration projects concerning green building initiatives in federal facilities and universities. The Secretary and the Administrator of the Environmental Protection Agency would be required to initiate an information program about energy efficiency for data centers. This bill would amend the Energy Conservation and Policy Act to require the Administrator to establish a Recoverable Waste-Energy Inventory Program that includes a survey of industrial and commercial combustion sources, a Registry of Recoverable Waste-Energy Sources, and a Waste-Energy Recovery Incentive Program within EPA. Subtitle F, entitled the Sustainable Energy Institutional Infrastructure Act of 2007, would require the Secretary to help institutional entities with sustainable energy infrastructure through technical assistance and a Sustainable Institutions Revolving Fund. Section 176 would authorize state energy conservation programs for FY2007-FY2012. Subtitle I would require the Secretary to establish an Energy Efficiency

Block Grant Program for grants to local governments and states and a technical assistance program to help them with energy efficiency programs. Subtitle J would require the Director of DOE's Office of Science to make green buildings retrofit loan guarantees for specified renovation projects. Introduced July 31, 2007; referred to Committees on Energy and Commerce, Transportation and Infrastructure, and Oversight and Government Reform. Reported (H.Rept. 110-304 Part I) August 3, 2007.

H.R. 3238 (Boucher)

Title I would promote the development of a renewable fuels infrastructure. DOE would be required to establish a grant program to help install, replace, or convert existing infrastructure for use with renewable fuel, including E85. Technical assistance and marketing grants would be provided. DOE would be authorized $200 million annually to support those two grant programs. Grant awards to a large, vertically integrated oil company would be prohibited. The Petroleum Marketing Practices Act (PMPA) would be amended to prohibit a franchise agreement from restricting the franchisee's ability to install renewable fuel infrastructure, convert existing infrastructure to renewable fuel use, advertise the availability of renewable fuel, or sell renewable fuel in any specified area of the marketing premises. DOE, would be directed to report to Congress on the market penetration of FFVs and on the feasibility of requiring motor fuel retailers to install E85 compatible dispensers. DOE would be required to conduct a study on the feasibility of the constructing dedicated ethanol pipelines. EPA would be directed to conduct a study of the feasibility of widespread use of ethanol blended gasoline with levels of ethanol greater that 10%. DOE would be required to study and report to Congress on the adequacy of railroad infrastructure for ethanol fuel delivery. To help manufacturers better design engines for biodiesel use, EPA would be directed to set regulations that establish uniform per gallon fuel standards for biodiesel fuel. EPACT would be amended to increase the authorized amount of grants for cellulosic ethanol production and to establish criteria that promote geographical dispersion of grant recipients and feedstock diversity. DOT would be required to engage in a consumer education campaign about the availability of flexible-fuel vehicles and the locations where renewable fuels can be purchased. The procedures for obtaining a waiver under section 211(f)(4) of the Clean Air Act related to renewable fuels and renewable fuel additives would be modified. A grant program would be created to support domestic development and production of flexible-fuel vehicles. An authorization of $50 million would be provided to support cellulosic ethanol grants to 10 entities from 1890 land grant colleges, Historically Black Colleges and Universities, Tribal-serving institutions, or Hispanic-serving institutions. Each federal agency would be required to install renewable fuel pumps at their fleet fueling centers and to prepare an annual report on its progress. DOE, EPA, EIA, and USDA would be directed to conduct a study of impacts from increased renewable fuel use including energy security, public health and the environment, and job creation. For States with low rates of ethanol production, DOE would be required to provide grants to eligible entities for research on renewable fuel production technologies. B20 biodiesel blend would be made eligible as an alternative fuel for the purposes complying with Corporate Average Fuel Economy (CAFE) requirements. Title II would promote energy cooperation between the United States and Israel. Introduced July 31, 2007; referred to Committees on Energy and Commerce, Transportation and Infrastructure, Science and Technology, and Oversight and Government Reform. Committee on Energy and

Commerce reported amended (H.Rept. 110-306 Part I) August 3, 2007. The provisions of this bill were incorporated into Title IX (Subtitle D) of H.R. 3221.

H.R. 3239 (Boucher)

Advanced plug-in hybrid vehicles and vehicle components would be promoted. DOE would be directed to establish a program to: provide loan guarantees for the construction of facilities to manufacture advanced vehicle batteries and battery systems; provide grants to state governments, local governments, municipal transportation authorities, air pollution control districts, or private or nonprofit entities to conduct projects to encourage the use of plug-in electric drive vehicles or other emerging electric vehicle technologies; and make grants to owners of domestic motor vehicle manufacturing or production facilities for the production of plug-in hybrid electric motors or conversion modules to convert vehicles to plug-in hybrid electric vehicles. Also, the bill would provide grants to hybrid component manufacturers to encourage domestic production of plug-in electric hybrid vehicles and would authorize DOE to coordinate such grant programs with similar state and local programs, including the establishment of matching grant arrangements and retaining skilled workers from recently closed manufacturing facilities to produce plug-in electric hybrid components. The following would also be required: a market assessment for electric drive transportation technologies and hybrid technologies; and a study of the implications of using plug-in electric vehicles and other types of electric transportation on the electric grid and on the production of electricity from renewable sources. DOT would be directed to study and report to Congress on the benefits of, and barriers to, widespread use of plug-in hybrid electric vehicles and plug-in electric drive vehicles. Appropriations would be authorized for all of these activities. Introduced July 31, 2007; referred to Committees on Energy and Commerce, Oversight and Government Reform, and Science and Technology. Committee on Energy and Commerce reported (H.Rept. 110-307, part I) on August 3, 2007.

H.R. 3248 (Oberstar)

SAFETEA-LU Technical Corrections Act of 2007. Title IV, Section 401 would direct the General Services Administration (GSA) to install a solar photovoltaic system for the DOE headquarters building. Introduced July 31, 2007; referred to the Committee on Environment and Public Works. Passed House (422-1) on August 1, 2007. Referred to Senate Committee on Environment and Public Works.

H.R. 3274 (Israel)

United States-China Energy Cooperation Act. Grants would be authorized to encourage cooperation between the United States and China on joint research, development, or commercialization of carbon capture and sequestration technology, improved energy efficiency, or renewable energy sources. Introduced August 1, 2007; referred to Committee on Energy and Commerce and Committee on Science and Technology.

H.R. 3524 (Waters)

HOPE VI Improvement and Reauthorization Act of 2007. Green (energy efficiency and renewable energy) provisions would become required aspects of the HOPE VI public housing revitalization programs. Introduced September 11, 2007;

referred to Committee on Financial Services. Reported (H.Rept. 110-507) January 3, 2008.

H.R. 3534 (Ferguson)

Energy Efficient Appliance Tax Credit for Washers and Dryers Act of 2007. Individuals and businesses would be allowed a 25% credit, capped at $500, against income tax for the purchase of Energy Star-compliant clothes washers and dryers. The credit would sunset at the end of 2016. Introduced September 14, 2007; referred to Committee on Ways and Means.

H.R. 3593 (Lampson)

Smart Energy Tax Relief Act of 2007. The bill would make permanent the credit for nonbusiness energy property, the credit for natural gas produced from biomass, and the credit for energy efficient appliances. Introduced September 19, 2007; referred to Committee on Ways and Means.

H.R. 3637 (Blumenauer)/S. 2444 (Murray)

Higher Education Sustainability Act of 2007. The Department of Education would be directed to make grants to support the establishment of sustainability programs at institutions of higher education. Such programs would be required to develop and implement a number of sustainability practices, including practices in the areas of energy management and green buildings. Also, the Department would be directed to convene summit of higher education experts on sustainability practices. A report to Congress would be required. House bill introduced September 24, 2007; referred to Committee on Education and Labor. Senate bill introduced September 24, 2007; referred to Committee on Education and Labor.

H.R. 3657 (Ferguson)

Energy Efficient Appliance Tax Credit for Air Conditioners Act of 2007. A tax credit would be established, capped at $500, for the purchase of an Energy Star compliant air conditioner. Introduced September 25, 2007; referred to Committee on Ways and Means.

H.R. 3775 (Lampson)

Industrial Energy Efficiency Research and Development Act of 2007. A program would be authorized to promote cooperation with energy-intensive industries, trade associations, and universities to conduct R&D, demonstration, and commercial application activities for new industrial and commercial processes, technologies, and methods that would improve energy efficiency and environmental performance. University-based industrial research and assessment centers would be established. Introduced October 9, 2007; referred to Committee on Science and Technology. Reported amended (H.Rept. 110-401) and passed House by voice vote on October 22, 2007.

H.R. 3776 (Gordon)

Energy Storage Technology Advancement Act of 2007. An R&D and demonstration program would be created to improve energy storage for electrical grids, hybrid vehicles, and stationary applications. DOE would be authorized $780 million between 2009 and 2014. Introduced October 9, 2007; referred to Committee

on Science and Technology. Reported amended (H.Rept. 110-402) and passed House (with amended title) by voice vote on October 22, 2007.

H.R. 3781 (Hill)

Biodiesel Promotion and Quality Assurance Act of 2007. A biodiesel fuel standard would be established, starting at 450 million gallons in 2008, rising to 1.25 billion gallons in 2012 (§ 3). Standards for biodiesel labeling and fuel quality would also be established. House bill introduced October 9, 2007; referred to Committee on Energy and Commerce. Senate bill introduced June 13, 2007; referred to Committee on Environment and Public Works.

H.R. 3807 (Giffords)

Renewable Energy Assistance Act of 2007. Tax incentives would be extended for residential energy efficient property (8 years), the 30% business credit for solar equipment and fuel cells (8 years), non-business energy property (8 years), and manufacture of efficient appliances (2 years). Introduced October 10, 2007; referred to Committee on Ways and Means.

H.R. 3823 (Ferguson)

Energy Efficient Appliance Tax Credit for Refrigerators and Freezers Act of 2007. Individual tax payers would be allowed a 25% credit (up to $500) against income tax for the purchase of Energy Star compliant refrigerators and freezers. Introduced October 12, 2007; referred to Committee on Ways and Means.

H.R. 3878 (McCaul)

In carrying out its Energy for Sustainability program, the National Science Foundation may accept and use funds from DOE's Energy Efficiency and Renewable Energy program to support projects that enable related R&D activities. Introduced October 17, 2007; referred to Committee on Science and Technology.

H.R. 3945 (Israel)

Clean Energy Partnership Act of 2007. A program would be established to provide grants to local educational agencies in an amount up to 50% of the cost of implementing a clean energy project. Funding of $20 million would be authorized for FY2009 through FY2013. Introduced October 23, 2007; referred to Committee on Education and Labor.

H.R. 3989 (McHugh)

Healthy Air and Clean Water Act. Section 132(b)(2) would require EPA to coordinate with other federal and state governments to increase energy efficiency, to increase the use of renewable energy, and to implement cost saving demand and supply side policies. Introduced October 29, 2007. Referred to Committees on Energy and Commerce, Natural Resources, Science and Technology, and Agriculture.

H.R. 3997 (Rangel)

Defenders of Freedom Tax Relief Act of 2007. Title IV of the bill is cited as the "Tax Technical Corrections Act of 2007." Section 405 would modify the rules for filing excise tax refund claims for alternative fuel mixtures and the definition of alternative fuels relating to hydrogen and carbon resources. Section 406 would revise

definitions relating to qualified alternative fuel refueling property for purposes of the tax credit for investment in such property. Section 407 would eliminate the requirement that open-loop biomass be segregated from other waste material in order to be eligible for the tax credit for producing electricity from renewable resources. Section 409 would allow certain wind energy facilities placed in service prior to June 30, 1999, to be eligible for the tax credit for producing electricity from renewable resources. Introduced October 30, 2007; referred to Committee on Ways and Means. Reported (H.Rept. 110-426) November 5, 2007. Passed House (410-0) November 6, 2007. Passed Senate with amendment and amendment to title on December 12, 2007. House agreed to Senate amendments with further amendment December 18, 2007. Senate concurred with House amendment with an additional amendment on December 19, 2007.

H.R. 4059 (Inslee)

Rural Clean Energy Superhighways Act. Electric transmission construction would be promoted in rural areas that have significant renewable energy potential. Introduced November 1, 2007; referred to Committees on Energy and Commerce, Natural Resources, and Transportation and Infrastructure.

H.R. 4072 (Barrow)

The tax credit for energy efficient appliances would be extended for two years. Introduced November 5, 2007; referred to Committee on Ways and Means.

H.R. 4086 (Klein)

Healthy Families and Dedicated Teachers Tax Relief Act of 2007. Section 2 would extend the residential energy efficient property credit for five years, through December 31, 2013. Introduced November 6, 2007; referred to Committee on Ways and Means.

H.R. 4126 (Pascrell)

Roofing Energy Efficiency Tax Act of 2007. Roof systems that meet the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) 90.1 (2004) energy efficiency standard would be eligible as 20-year property for depreciation purposes. Introduced November 8, 2007; referred to Committee on Ways and Means.

H.R. 4137 (Miller)

College Opportunity and Affordability Act of 2007. Section 804 encourages colleges and universities to use green design and green building practices. Introduced November 9, 2007; referred to Committees on Education and Labor, Judiciary, Science and Technology, and Financial Services. Committees on Education and Labor reported (H.Rept. 110-500) December 19, 2007. Passed House, amended, February 7, 2007.

H.R. 4226 (Gilchrest)

Climate Stewardship and Economic Security Act of 2007. This bill would accelerate the reduction of greenhouse gas emissions in the United States by establishing a market-driven system of greenhouse gas tradeable allowances that will limit greenhouse gas emissions in the United States. Introduced November 15, 2007;

referred to Committees on Energy and Commerce, Science and Technology, Natural Resources, Foreign Affairs, Agriculture, and Ways and Means.

H.R. 4238 (Markey)

Bottle Recycling Climate Protection Act of 2007. A refund value would be set for certain beverage containers and resources would be provided to support state recycling programs. The bill asserts that there would be a net savings of "embodied energy" required to manufacture the containers, thus providing a measure of energy efficiency improvement. Introduced November 15, 2007; referred to Committees on Energy and Commerce.

H.R. 4297 (Shuster)

This bill would extend for four years (to the end of 2012) the tax deduction for energy efficient commercial buildings, the energy efficient new home tax credit (for builders), the nonbusiness energy property tax credit, and the residential energy efficient tax credit. For certain individuals with income under 200% of the poverty level, it also provides a tax credit for using home heating oil. Introduced December 5, 2007; referred to Committee on Ways and Means.

H.R. 4306 (King)

The Clean Air Act would be amended to revise the term "renewable fuel" to mean ethanol produced from renewable biomass and increase the volume of renewable fuel that must be contained in fuel sold in the United States from 2009 through 2012. The renewable fuel standard (RFS) would be set at 9.5 billion gallons in 2008, rising to 36.0 billion gallons in 2022. It would set the biomass-based diesel component of the RFS at 450 million gallons in 2008, rising to 1.3 billion gallons in 2012 (§102). EPA would be required to determine these two standards for other calender years. DOE would be directed to ensure that each covered owner of a retail station outlet installs one or more pumps that dispense ethanol-blend fuel or bio-diesel fuel (§201). The Petroleum Marketing Practices Act would be amended to prohibit restricting franchisees from installing alternative blend fuel pumps on the marketing franchisees' premises; converting existing tanks and pumps for alternative blend fuel use; advertising the sale of alternative blend fuels; or selling alternative blend fuel in specified areas (§107). The Clayton Act to would be amended to prohibit the restriction of a franchisee's right to install ethanol blend or biodiesel fuel pumps, and to state that term "gasohol" includes any blend of ethanol and gasoline (§202). EPA would be required to certify motor vehicle fuels containing 5% biodiesel or more (§203). Title III would extend the following alternative fuel tax credits: credits against income tax for alcohol used as fuel, ethanol blenders, biodiesel, and renewable diesel; credits against excise tax for alcohol fuel mixtures and bio-diesel mixtures; and payments equal to the alcohol fuel mixture credit, the biodiesel mixture credit, the alternative fuel mixture credit, or the alternative fuel credit to any person who produces, sells, or uses an alcohol fuel mixture, biodiesel mixture, or alternative fuel. Introduced on December 6, 2007; referred to the Subcommittee on Energy and Air Quality.

H.R. 4612 (Costa)

Climate Neutral Electricity Generation Act of 2007. A tax credit would be established for investing in climate neutral facilities. A "climate neutral combustion facility" is defined as any facility which: (1) burns matter to produce electricity; (2)

captures and uses carbon dioxide released during combustion to recover hydrocarbon fuel; and (3) produces no emissions of mercury or greenhouse gasses and no emissions that form fine particulate, smog, or acid rain. Introduced December 13, 2007; referred to Committee on Ways and Means.

H.R. 4773 (Young)

The Renewable and Hydroelectric Energy for Alaska's Tomorrow Act. The Secretary of Energy shall make 'renewable energy construction grants' available for renewable and hydroelectric energy projects within the state of Alaska no later than 180 days after the enactment of this act. Congress would authorize appropriations for such Funds necessary to carry out this act. Introduced December 17, 2007; referred to the Committee on Energy and Commerce.

H.R. 4986 (Skelton)

National Defense Authorization Act for Fiscal Year 2008. DOD would be allowed to use up to $70 million of its authorized appropriations for energy conservation projects. The Pentagon complex would be required to use high-energy efficiency light bulbs throughout its buildings. An annual report to Congress would be required that describes the extent to which energy from renewable energy sources is used to meet DOD electricity needs. Renewable energy use would be stated as a percentage of total facility electricity use for the previous fiscal year. Introduced January 16, 2008. Passed House on motion to suspend the rules and pass the bill (2/3 required): (369-46). Passed Senate (91-3) on January 22, 2008. Signed into law (P.L. 110-181) January 28, 2008.

H.R. 5140 (Pelosi)

Economic Stimulus Act of 2008. The House-passed version did not contain any provisions for energy efficiency or renewable energy. However, Subtitle C of S.Amdt. 3983 to H.R. 5140 included eight provisions that would have extended or re-established tax incentives for energy efficiency and renewable energy, making each incentive effective through the end of 2009. For home owners, there were two incentives. One would have re-established a recently expired investment tax credit provision for residential energy efficiency equipment and building shell measures (§122). Another would have extended the 30% investment credit for residential solar electric, solar hot water, and fuel cell equipment (§124). For businesses and commercial building owners, there were four incentives. First, the renewable energy electricity production tax credit (PTC) of two cents per kilowatt-hour for windfarms and other power facilities would have been extended (§125).[56] Second, an investment tax credit worth up to $2,000 would have been extended for commercial builders of new energy-efficient homes (§126). Third, a 30% investment tax credit would have been extended for businesses that install solar, geothermal, fuel cell, and microturbine equipment (§127). Fourth, an investment tax deduction worth up to $1.80 per square foot would have been extended for commercial building owners that install energy efficiency equipment and building shell measures (§129). For public schools and other public buildings, the Department of the Treasury would have been directed to issue regulations that make the deduction available to the company that designs the building energy efficiency features. For manufacturers of energy-

[56] For more background, see CRS Report RL34162.

efficient appliances, an expired tax credit would have been re-established (§121). Production of each energy-efficient dishwasher, or clothes washer, would have been eligible for a credit of up to $100. The credit for the production of energy-efficient refrigerators would have ranged from $75 each to $175 each, depending on the level of efficiency achieved. A cap of $75 million would have been set for the total tax benefit that could be claimed by each company. Certain non-tax-paying entities are eligible, through the end of 2008, to be "qualified issuers" of clean renewable energy bonds (CREBs).[57] The draft Senate bill would have authorized an additional $400 million in authority for CREBs to be issued through the end of 2009. Taxpayers holding the CREBs on a credit allowance date would have been entitled to a tax credit.[58] The amount of the tax credit would have been determined by multiplying the bond's credit rate by the face amount on the holder's bond. On February 5, 2007, S.Amdt. 3983 was brought to the Senate floor. On February 6, 2007, a motion to invoke cloture on S.Amdt. 3983 failed by a vote of 58 to 41. Subsequently, the Senate adopted S.Amdt. 4010, which did not contain any tax incentives for energy efficiency or renewable energy.

H.R. 5146 (Lampson)

Invest in Energy Security Act. Section 3 would establish an "Energy Independence and Security Fund" to be administered by DOE. For FY2008, DOE would be directed to transfer monies from this fund to the Energy Efficiency and Renewable Energy account to support the several programs authorized by the Energy Policy Act of 2005. Those programs include the Rural Wind Energy program, the Solar Energy Research and Development program, the Marine and Hydrokinetic Renewable Electric Energy program, the Industrial Energy Efficiency Research and Development program, the Building Energy Efficiency Research and Development program, the Energy Storage for Transportation and Electric Power Applications program, the Geothermal Energy Development program, and the Hydrogen Research and Development program. Introduced January 28, 2008; referred to the Committees on Energy and Commerce and Science and Technology.

H.R. 5161 (Wu)

Green Transportation Infrastructure Research and Technology Transfer Act. One of the "green infrastructure" criteria, specified in section 3, is to "minimize lifecycle energy consumption, including during construction, maintenance, use by vehicles, and destruction and recycling." Funding would be authorized to establish regional research centers and to provide grants to state and local governments (§2). Introduced January 29, 2008; referred to the Committee on Transportation and Infrastructure and the Committee on Science and Technology (HST). The HST Subcommittee on Technology and Innovation ordered the bill reported February 27, 2008.

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[57] Qualified issuers include state and local governments, American Indian tribes, public power providers (non-profit electric utilities), and cooperative electric companies. For more background about CREBs, see CRS Report RL34162.

[58] For more background, see CRS Report RL34162.

H.R. 5216 (Udall)

Wildlife Risk Reduction and Renewable Biomass Utilization Act. Section 2 would revise the definition of "renewable biomass," set by section 201 of the Energy Independence and Security Act of 2007, to facilitate and encourage the use of biomass removed from certain additional forest lands as an energy source in order to reduce the risk of severe wildfire to communities, infrastructure, and water supplies. Introduced January 29, 2008; referred to the Committee on Energy and Commerce.

H.R. 5231 (Braley)

Clean Energy Investment Act of 2008. The placed-in-service date for the renewable energy electricity production tax credit (PTC) would be extended for seven years, from the end of 2008 to the end of 2015. Introduced February 6, 2008; referred to the Committee on Ways and Means.

H.R. 5232 (Burgess)

Hospitals, schools, day care centers, mental health facilities, and nursing homes would be exempted from all federal and state requirements for the use of energy-efficient lighting in public buildings, if such lighting contains mercury. Introduced February 6, 2008; referred to Committees on Transportation and Infrastructure and on Energy and Commerce.

H.R. 5351 (Rangel)

Renewable Energy and Energy Conservation Tax Act of 2008. This bill would extend the following: the tax credit for production of electricity from renewable resources through 2011; the energy tax credit for solar energy and fuel cell property through 2016; the special rule for treatment of gain from electronic transmission transactions by certain electric utilities through 2009; the tax credit for residential energy efficient property expenditures through 2014; the tax credit for alternative fuel vehicle refueling property expenditures through 2010; the tax credit for biodiesel and renewable diesel used as fuel through 2010; the tax credit for nonbusiness energy property expenditures through 2009; and the tax deduction for energy efficient commercial buildings through 2013. New tax credits would be allowed for: investment in new clean renewable energy bonds and qualified energy conservation bonds and the production of plug-in hybrid motor vehicles, cellulosic alcohol fuel, and electricity from marine and hydrokinetic renewable energy sources. Tax credit amounts for certain energy efficient household appliances (dishwashers, clothes washers, and refrigerators) produced after 2007 would be revised. Limits would be placed on tax deductions for income attributable to the domestic production oil, natural gas, and any related products. Introduced on February 12, 2008; referred to the Committee on Ways and Means. Passed House (236-182) on February 27, 2008. Received in the Senate February 28, 2007; referred to the Committee on Finance.

H.R. 5373 (Boswell)

Consumer and Manufacturer Energy Efficiency Tax Credit Extension Act of 2008. For manufacturers, Section 2 would extend the energy efficient appliance tax credit to include dishwashers, clothes washers, and refrigerators produced in 2008 and 2009. For home owners, Section 3 would extend the nonbusiness energy property credit through December 31, 2009. Introduced February 12, 2008; referred to the Committee on Ways and Means.

H.R. 5401 (Loebsack)

Grants for Renewable and Energy Efficiency Needs School Improvement Act or GREEN Schools Improvement Act. DOE would be authorized to make grants for energy efficiency improvements and renewable energy improvements at public school facilities. DOE would allocate monies to states, which would provide grants to local educational agencies and other eligible entities for energy improvements. Section 5 authorizes DOE to make competitive grants available to States to develop guidelines and standards for energy improvements and facilities construction. Introduced February 12, 2008; referred to the Committee on Education and Labor.

H.R. 5402 (Welch)

Climate Change Center and Clearinghouse Act of 2008. An Office of Environment, Energy, and Climate Change would be established at the Small Business Administration. For small businesses, the Center would promote energy efficiency, help reduce energy costs, and promote renewable energy technology development. The Center would assist small businesses with scientific, economic, and technical information. Introduced February 12, 2008; referred to the Committee on Small Business.

H.R. 5437 (Ross)

American-Made Energy Act of 2008. This bill would promote alternative and renewable fuels, domestic energy production, energy conservation, and energy efficiency to increase American energy independence and to support other purposes. The bill includes tax incentives for renewable energy and energy efficiency (Title I), an American-made energy trust fund (Title II), a biofuels program (Title V), and an alternative vehicle fuels (plug-in hybrid) program (Title VI). Introduced February 14, 2008; referred to the Committees on Energy and Commerce, Science and Technology, Oversight and Government Reform, Armed Services, Natural Resources, and Ways and Means.

H.R. 5452 (Capps)

Coastal State Renewable Energy Promotion Act of 2008. The Coastal Zone Management Act of 1972 would be amended to authorize grants to coastal states to support resource surveys of coastal State waters and Federal waters adjacent to a State's coastal zone to identify potential areas suitable or unsuitable for the exploration, development, and production of renewable energy. Introduced February 19, 2008; referred to the Committee on Natural Resources, Subcommittee on Fisheries, Wildlife, and Oceans.

H.R. 5529 (Markey)

International Renewable Energy Agency (IRENA) Act of 2008. The President would be directed to seek to establish — through the United Nations or other venue — an international renewable energy agency to expand renewable energy development in world markets to increase economic opportunity, drive technological innovation, enhance regional and global security, raise living standards, and reduce global warming pollution. The agency is envisioned to have parallels to the International Energy Agency (IEA) and the International Atomic Energy Agency (IAEA). Introduced March 4, 2008; referred to the Committee on Foreign Affairs.

H.R. 5560 (Welch)

Right to Clean Vehicles Act. The purpose of the bill is to permit California and other States to effectively control greenhouse gas emissions from motor vehicles. To achieve this, the bill would amend the Clean Air Act to direct that "application for a waiver of preemption dated December 21, 2005, submitted to the Administrator pursuant to subsection (b) by the State of California for the regulation of that State to control greenhouse gas emissions from motor vehicles shall be considered to be approved." Introduced March 6, 2008; referred to the Committee on Energy and Commerce.

H.R. 5597 (Bean)

Next Generation Homes Act of 2008. The energy efficiency tax credit for new homes would be modified, and an energy-efficient home purchase tax deduction would be established. Introduced March 12, 2008; referred to Committee on Ways and Means.

H.R. 5656 (Hensarling)

Section 526 of the Energy Independence and Security Act of 2007 (P.L. 110-140) would be repealed. The section currently prohibits federal agencies from entering a procurement contract for an alternative or synthetic fuel (including ethanol), unless the contract stipulates that greenhouse gas emissions are less than those from conventional petroleum fuels. Introduced March 31, 2008; referred to Committee on Oversight and Government Reform. Referred to the Subcommittee on Government Management, Organization, and Procurement April 10, 2008.

H.R. 5705 (McDermott)

Clean Energy Partnership with India Act of 2008. A commission would be established to study methods for improving and promoting bilateral renewable energy cooperation between the United States and India. Introduced April 3, 2008; referred to Committee on Foreign Affairs.

H.R. 5713 (Shadegg)

Splash and Dash Correction Act of 2008. Eligibility would be clarified for certain fuel credits for fuel with an insufficient connection to the United States. Credits would be allowed for alcohol and biodiesel fuel produced in the United States for consumption in the United States and for alcohol mixtures and biodiesel mixtures produced in the United States for consumption in the United States. Credits would not be allowed for mixtures of alcohol or biodiesel fuel that are destined for export. Introduced April 4, 2008; referred to the Committee on Ways and Means.

H.R. 5746 (Larson)

Hydrogen Tax Incentives Act of 2008. A tax credit for hydrogen infrastructure and fuel costs would be established. The credit would terminate after three years. Introduced April 9, 2008; referred to the Committee on Ways and Means.

H.R. 5805 (Pearce)

The Department of the Interior (DOI) would be directed to create a program to lease federal lands for developing solar energy. Energy producers under such leases would be required to make royalty payments to DOI. Introduced April 15, 2008;

referred to the Committee on Natural Resources. Referred to Subcommittee on Energy and Mineral Resources April 21, 2008.

H.R. 5818 (Waters)

Neighborhood Stabilization Act of 2008. The Department of Housing and Urban Development (HUD) would be required to make grants and loans to states to carry out eligible housing stimulus activities. Loans could be used to rehabilitate a qualified foreclosed property to increase it's energy efficiency or provide a renewable energy source (or sources), with the goal of reselling the property within three months at a price as close as possible to the original acquisition price. Introduced April 16, 2008; referred to Committee on Financial Services. Reported (H.Rept. 110-616) May 1, 2008. Passed House (239-188) May 8, 2008.

H.R. 5819 (Velazquez)

SBIR/STTR Reauthorization Act. The bill aims to amend the Small Business Act to improve the Small Business Innovation Research (SBIR) program and the Small Business Technology Transfer (STTR) program. An amendment (H.Amdt. 1011) adopted in House floor action created a new section 509 that directs federal agencies, in making SBIR, STTR, and FAST grant awards, to give priority to applications from organizations that "are making significant contributions toward energy efficiency" including those that "are making efforts to reduce their carbon footprint or are carbon neutral." Introduced April 16, 2008; referred to Committee on Small Business and Entrepreneurship. Committee on Small Business reported (H.Rept. 110-595, pt. 1) April 18, 2008. H.Amdt. 1011 adopted by vote of 355 to 48 on April 23, 2008. Passed House by vote of 368 to 43 on April 23, 2008.

H.R. 5860 (Ackerman)

This bill would increase the average fuel economy of light-duty vehicles in the federal fleet. It would direct that, beginning in 2010, and each year thereafter, the fuel economy required for the previous year be increased by at least 2 miles per gallon (mpg), until a requirement of 40 mpg is reached. Introduced April 22, 2008; referred to Committees on Energy and Commerce and Oversight and Government Reform.

H.R. 5867 (Matsui)

Energy Conservation Through Trees Act. A 50% federal cost-shared grant program would be created to assist retail electric power providers with the establishment and operation of energy conservation programs using targeted tree-planting to increase residential shade and thereby reduce electricity use for home cooling needs. Introduced April 22, 2008; referred to Committee on Energy and Commerce.

H.R. 5911 (Flake)

Remove Incentives for Producing Ethanol (RIPE) Act of 2008. The renewable fuel standard (RFS) would be repealed, tax credits for ethanol producers would be repealed, and ethanol import tariffs and duties would be repealed. Introduced April 29, 2008; referred to Committees on Ways and Means and Energy and Commerce.

H.R. 5917 (Knollenberg)

New Bridging Industry and Government Through Hi-Tech Research on Energy Efficiency Act of 2008. DOE would be directed to provide R&D grants for advanced battery development (§3). The R&D tax credit would be extended permanently (§4). A federal interagency CAFE work group would be created to coordinate federal R&D on advanced fuel technology (§5). Standards for the production and blending of biofuels would be harmonized (§6). DOT would be directed to create a grant program for hydrogen fuel pumps at gasoline stations (§7). GSA would be authorized to procure fuel cell vehicles for federal agencies (§8). Introduced April 29, 2008; referred to Committees on Science and Technology, Ways and Means, Oversight and Government Reform, Energy and Commerce, and Transportation and Infrastructure.

H.R. 5964 (Gonzalez)

The Clean Air Act would be amended to extend the compliance period for companies subject to the renewable fuel mandate for 2008 through 2010. Introduced May 5, 2008; referred to Committee on Energy and Commerce.

H.R. 5984 (Bartlett)/S. 2821 (Cantwell)

Clean Energy Tax Stimulus Act of 2008. This bill would extend or modify several tax incentives. There are four incentives for renewable energy. The business renewable energy electricity production tax credit (PTC) would be extended for one year, through the end of 2009 (§101). Also, the PTC would be expanded to include marine and hydrokinetic power. Further, in cases when a utility is part owner of the facility, the credit would be allowed to reduce the cost of power sold to utility customers. For business solar and fuel cell property, the 30% investment tax credit (ITC) would be extended for eight years, through the end of 2016 (§102). The 0.5 kilowatt cap for fuel cell property would be removed. Utilities would become eligible to claim the ITC. Also, a 10% credit for microturbines would be extended. For residential solar property, the 30% ITC would be extended for one year, through the end of 2009 (§103). The $2,000 cap for solar electric property would be removed. For non-profit entities, an additional $400 million of clean renewable energy bonds (CREBs) would be authorized for issuance before the end of 2009 (§104). Also, there are four incentives for energy efficiency measures. For homeowners, the 10% ITC for energy efficiency improvements to existing homes would be extended for one year, through the end of 2009 (§201). Pellet stoves would be included as eligible equipment. For contractors and developers of new energy-efficient homes, the ITC would be extended for two years, through the end of 2010 (§202). For commercial buildings, the tax deduction for energy-efficiency improvements would be extended for one year, through the end of 2009 (§203). The maximum deduction would be increased to $2.25 per square foot. For building subsystems, a partial deduction of $0.75 per square foot would be established. For manufacturers, the ITC for energy-efficient appliances (dishwashers, clothes washers, and refrigerators) would be extended for three years, through the end of 2010 (§204). Senate bill introduced April 3, 2008; referred to Committee on Finance. The second degree amendment S.Amdt. 4419 to S.Amdt. 4387 incorporated the text of S. 2821 into Senate version of H.R. 3221. House bill introduced May 7, 2008; referred to Committee on Ways and Means.

H.R. 5986 (Burgess)

Diesel Fuel Tax Relief Act of 2008. Excise and income tax credits for ethanol and other alcohol fuels would be terminated immediately (§3). Introduced May 7, 2008; referred to Committee on Ways and Means.

H.R. 6000 (Kucinich)

Gas Price Spike Act of 2008. A tax credit would be created for purchasing fuel-efficient, American-made passenger vehicles (§3). The maximum credit would range from $3,000 to $6,000, depending on the vehicle's fuel economy. Introduced May 8, 2008; referred to Committee on Transportation and Infrastructure. Referred to Subcommittee on Highways and Transit.

H.R. 6001 (Buyer)

Main Street U.S.A. Energy Security Act of 2008. Title II contains several extensions and expansions of tax incentives for renewable energy and energy efficiency. Title III contains a provision for fuel blends with ethanol and for cellulosic ethanol. Introduced May 8, 2008; referred to Committees on Natural Resources, Energy and Commerce, Ways and Means, Armed Services, and Science and Technology.

H.R. 6049 (Rangel)

Energy and Tax Extenders Act of 2008. Title I would extend several tax incentives for energy efficiency and renewable energy, similar to those in H.R. 5351. Introduced May 14, 2008; referred to Committee on Ways and Means. Committee approved (25-12) on May 15, 2008. Reported (H.Rept. 110-658), amended, on May 20, 2008. Passed House by vote of 263 to 160 on May 21, 2008.

H.R. 6052 (Oberstar)

Saving Energy Through Public Transportation Act of 2008. DOT formula grants would be available to reduce fares or expand services of public transportation systems (§3). The federal grant portion would be increased to 100% for the acquisition of clean fuel vehicles and facilities required to comply with the Clean Air Act (§4). Transportation fringe benefits for federal employees would be expanded to all federal facilities nationwide (§5). DOT would be directed to conduct vanpool pilot programs for urbanized and non-urbanized areas (§6). The federal grant share would be increased to 100% for end-of-line facilities of fixed-guideway transit systems. Introduced May 15, 2008; referred to Committees on Transportation and Infrastructure and Oversight and Government Reform.

H.R. 6078 (Perimutter)

Green Resources for Energy Efficient Neighborhoods (GREEN) Act of 2008. Energy efficiency and conservation and the development of renewable energy sources would be encouraged for housing, commercial structures, and other buildings, and to create sustainable communities. Introduced May 15, 2008; referred to Committee on Financial Services.

H.R. 6124 (Peterson)

Food, Conservation, and Energy Act of 2008. Similar to H.R. 2419. Energy efficiency and renewable energy provisions appear in Subtitle B (Rural Electrification Act of 1936) of Title VI on Rural Development; Title IX on Energy;

Part II (Energy Provisions) of Title XV on Trade and Tax Provisions. Introduced May 22, 2008; referred to Committees on Agriculture and Foreign Affairs. House adopted (306-110) May 22, 2008.

H.R. 6125 (Burgess)

Section 526 of the Energy Security and Independence Act of 2007 (P.L. 110-140) would be repealed (§2). Section 526 prohibits federal agencies from entering a procurement contract for an alternative or synthetic fuel (including ethanol), unless the contract stipulates that greenhouse gas emissions are less than those from conventional petroleum fuels. Introduced May 22, 2008; referred to the Committees on Armed Services and Oversight and Government Reform.

H.R. 6133 (Terry)

The renewable energy production tax credit (PTC) and the solar energy and fuel cell investment tax credit would be extended for five years. The PTC would be expanded to include marine and hydrokinetic energy sources. Introduced May 22, 2008; referred to Committee on Ways and Means.

H.R. 6134 (Barton)

Renewable Fuel Adjustment Act of 2008. The National Academy of Science would be directed to assess the impact of federal and state ethanol use requirements on producers of feed grains, livestock, food, forest products, energy, and other consumer goods (§3). The Reduced Ethanol Blender Credit would be amended by setting new reduction levels for ethanol derived from corn kernels, soybeans, and other food or feed substances through 2011. Introduced May 22, 2008; referred to Committees on Energy and Commerce and Ways and Means.

H.R. 6136 (Burgess)

The President would be authorized to waive any requirement for an applicable volume of renewable fuels if the President finds that the applicable volume is not technologically feasible to attain or that the fuel is not commercially available in the required volume. Introduced May 22, 2008; referred to Committee on Energy and Commerce.

H.R. 6149 (Delahunt)

The Department of Defense (U.S. Army and U.S. Air Force) would be authorized to use funds from existing appropriations for operations and maintenance to install wind turbines and other renewable energy generating technologies on the Massachusetts Military Reservation. Introduced May 22, 2008; referred to Committee on Armed Services.

H.R. 6155 (Markey)

Renewable Investment and Consumer Protection Act. A "Clean Energy Fund" would be created. The fund would be used to accelerate the use of clean domestic renewable energy sources and alternative fuels; promote the use of energy-efficient products and practices and conservation; increase R&D and deployment of clean renewable energy and efficiency technologies; and carry out the Low-Income Home Energy Assistance Act. Introduced May 22, 2008; referred to Committees on Ways and Means, Energy and Commerce, Science and Technology, and Education and Labor.

H.R. 6171 (Lungren)

National Capital Region Leadership in Environmental and Energy Stewardship Commission Act. A commission and a national competition would be established to improve energy efficiency in federal buildings of the National Capital Region and, thereby, reduce the emissions of greenhouse gases from those buildings. Introduced June 3, 2008; referred to Committee on Oversight and Government Reform.

H.R. 6186 (Markey)

Investing in Climate Action and Protection (ICAP) Act. EPA would be directed to establish a program to decrease emissions of greenhouse gases through establishment of a "cap-and-trade" emissions trading program and other measures. Energy efficiency and/or renewable energy provisions appear in 3 of the 7 titles. Under Title III, Subtitle B would establish a low-carbon technology fund to support R&D, demonstration, and deployment of energy efficiency and renewable energy technologies. Subtitle C would set up a national fund to support energy efficiency measures for electricity and natural gas consumers, buildings, "smart growth" land use planning, public transit, weatherization, and recycling. Subtitle E would provide for green jobs training. Under Title IV, Subtitle B would create an international fund to support clean energy technologies. Title VI would encourage states to update building energy efficiency codes. Introduced June 4, 2008; referred to Referred to the Committee on Energy and Commerce and to the Committees on Ways and Means, Science and Technology, Natural Resources, Agriculture, Foreign Affairs, Education and Labor, Transportation and Infrastructure, Oversight and Government Reform, and Rules.

Senate Bills (with House Companions)

S.Con.Res. 3 (Salazar)/H.Con.Res. 25 (Peterson)

The sense of the Congress would be expressed that it is the goal of the United States that, not later than January 1, 2025, the agricultural, forestry, and working land of the United States should provide from renewable resources not less than 25% of the total energy consumed in the United States and continue to produce safe, abundant, and affordable food, feed, and fiber. Senate bill introduced January 17, 2006; referred to Committee on Agriculture, Nutrition, and Forestry. House bill introduced January 10, 2007; referred to Committees on Agriculture, Energy and Commerce, and Natural Resources.

S.Con.Res. 21 (Conrad)/H.Con.Res. 99 (Spratt)

This resolution would revise the congressional budget for FY2007, establish the budget for FY2008, and set forth appropriate budgetary levels for FY2009 through FY2012. Section 307 of the Senate resolution would create a deficit-neutral reserve fund that could be used for renewable energy, energy efficiency, and responsible development of oil and natural gas. Section 332 would create a deficit-neutral reserve fund for extension through 2015 of certain energy tax incentives, including the renewable energy electricity production tax credit (PTC), Clean Renewable Energy Bonds, and provisions for energy efficient buildings, products, and power plants. Section 338 would create a deficit-neutral reserve fund for manufacturing initiatives that could include tax and R&D measures that support alternative fuels, automotive technologies, energy technologies, and the infrastructure to support the technologies. The House resolution provides funding for energy

(Function 270) above the President's request that "could be used for research, development, and deployment of renewable and alternative energy." Section 207 of the House resolution would create a deficit-neutral reserve fund that fulfills the purposes of H.R. 6 (CLEAN Energy Act, §301a), namely to "facilitate the development of conservation and energy efficiency technologies, clean domestic renewable energy resources, and alternative fuels that will reduce our reliance on foreign oil." Senate Committee on the Budget reported (without written report) March 16, 2007. Passed Senate (52-47) March 23, 2007. House Committee on the Budget reported (H.Rept. 110-69) March 23, 2007. Passed House (216-210) March 28, 2007. Senate bill passed in House with amendment (212-207) May 8, 2007; House appointed conferees. Senate appointed conferees May 9, 2007. Conference reported (H.Rept. 110-153) May 17, 2007. House agreed to conference report (214-209) May 17, 2007. Senate agreed to conference report (52-40) May 17, 2007.

S.Con.Res. 70 (Conrad)

The Senate budget resolution would set forth the FY2009 federal budget and the appropriate budgetary levels for fiscal years 2008 and 2010 through 2013. Section 304 would establish a deficit-neutral reserve fund to invest in clean energy. Introduced March 7, 2008; referred to the Committee on the Budget. Reported to Senate (S. Prt. 110-039) by the Chairman without a written report. In Senate floor action on March 12, 2008, S.Amdt. 4207 was introduced, which would establish a deficit-neutral reserve fund to improve energy efficiency and production.

S.Res. 30 (Biden)/H.Con.Res. 104 (Carnahan)

The sense of the Senate would be expressed that the United States should return to international negotiations on climate change and take a leadership role in those negotiations. The resolution would recognize that there are security and economic benefits from reducing greenhouse gas emissions and from markets for new, climate-friendly technologies. Senate bill introduced January 16, 2007; referred to Committee on Foreign Relations. Reported (without a written report) March 29, 2007. House bill introduced April 23, 2007. Referred to Committee on Foreign Affairs April 29, 2007.

S.Res. 113 (Bingaman)

On the 30th anniversary of the incorporation of the Alliance to Save Energy, the resolution commends the achievements of the Alliance and recognizes its importance. Passed Senate March 20, 2007.

S.Res. 212 (Coleman)

The sense of the Senate would be expressed that any comprehensive, mandatory greenhouse gas emissions reduction program enacted by Congress should include several provisions, including one that provides effective incentives to private entities that sell electricity to increase the percentage of sales generated by clean energy sources. Introduced May 21, 2007; referred to Committee on Environment and Public Works.

S.Res. 577 (Warner)

The sense of the Senate is expressed, calling on federal departments and agencies to conserve gasoline and other fuels during this time of high gasoline prices for consumer. Senate adopted by unanimous consent on May 22, 2008.

S. 6 (Reid)

National Energy and Environmental Security Act of 2007. Expresses the sense of Congress that Congress should enact, and the President should sign, legislation to enhance the security of the United States by reducing the dependence of the United States on foreign and unsustainable energy sources and the risks of global warming by requiring greenhouse gas reductions and supporting environmentally friendly technologies. Introduced January 4, 2007; referred to Committee on Finance.

S. 12 (McConnell)

Homeownership, Manufacturing, and Economic Growth Act or HOME Act. Several residential and business energy efficiency tax provisions would be extended through the end of 2009: tax credits for nonbusiness energy property (§101), residential energy efficient property (§111), energy efficient appliances (Section 125), and new energy efficient home credit (§149); tax deductions for energy efficient commercial buildings (§153); and income and excise tax credits for alternative fuels, including biodiesel and ethanol fuel from coal (§146, §166 and §167). Introduced February 29, 2008.

S. 23 (Harkin)/H.R. 559 (Delahunt)

Biofuels Security Act of 2007. Section 101 would modify the EPACT (§1501) requirement that renewable fuel content reach 7.5 billion gallons in 2012, accelerating the requirement to 10 billion gallons by 2010 and then rising to 30 billion gallons by 2020 and 60 billion gallons by 2030. Other provisions would require E85 pumps at branded gasoline stations (§102), increased use of alternative fuels in the federal fleet (§103), increased manufacturers percentage of dual-fueled vehicles (§201), and increased manufacturers incentives for dual-fueled vehicles (§202). Senate bill introduced January 4, 2007; referred to Committee on Commerce, Science, and Transportation. House bill introduced January 18, 2007; referred to Committees on Energy and Commerce, Oversight and Government Reform, and Judiciary.

S. 36 (Thune)

Biofuels Innovation Program Act of 2007. Matching grants up to $30,000 would be created for business planning and assistance to develop farm-based production of dedicated energy and biomass crops and to attract or create a cellulosic biofuels facility. Also, incentives would be offered to farmers who plant switchgrass, and other cellulosic feedstocks, and deliver them to biorefineries. Introduced May 23, 2007; referred to Committee on Agriculture.

S. 129 (Allard)

Energy-Efficient Computer Servers Study. Section 1 would direct EPA to study and report to Congress on the growth in energy use by computer servers. Section 2 would express the sense of the Senate that it is in the best interest of the United States for purchasers of computer servers to give high priority to energy efficiency as a factor in determining best value and performance. Introduced January 4, 2007; referred to Committee on Energy and Natural Resources.

S. 133 (Obama)/H.R. 2354 (Visclosky)

American Fuels Act of 2007. Section 2 would create an Office of Energy Security in the Executive Office of the President. Section 3 would provide a

production tax credit to manufacturers of flexible fuel vehicles. Section 4 would establish a retail sales incentive for alternative fuels. Section 5 would prohibit certain restrictions on the installation of alternative fuel pumps. Section 6 would create an increasing percentage standard for biodiesel, or other alternative diesel fuel, content in diesel fuels. Section 7 would create an excise tax credit for the production of cellulosic ethanol from biomass. Section 8 would establish an incentive for federal and state fleets to use medium- and heavy-duty hybrid vehicles. Section 9 would establish an investment tax credit for qualified ethanol blending and processing equipment. Section 10 would increase public access to alternative fuel refueling stations on federal property. Section 11 would restrict the use funds in the Mass Transit Account of the Highway Trust Fund to the purchase of clean fuel buses. Section 12 would require the Department of Defense to increase the use of alternative fuels. Section 13 would increase federal requirements for the use of electric vehicles and plug-in hybrid vehicles. Senate bill introduced January 4, 2007; referred to Committee on Finance. House bill introduced May 16, 2007; referred to Committees on Energy and Commerce, Science and Technology, Ways and Means, Transportation and Infrastructure, Oversight and Government Reform, Armed Services, and Judiciary.

S. 146 (Boxer)

Government Fleet Fuel Economy Act of 2007. The federal government would be required to purchase and lease fuel efficient automobiles. Introduced January 4, 2007; referred to Committee on Commerce, Science, and Transportation.

S. 162 (Lugar)

National Fuels Initiative. Section 102 would modify and extend the alcohol fuel and alternative fuel tax credits. Section 103 would require major oil companies to phase-in the installation of E85 fuel pumps at gasoline stations, reaching 100% by 2017. Section 104 would require manufacturers to increase the share of dual fueled automobiles to 100% by 2017. Introduced January 4, 2007; referred to Committee on Finance.

S. 167 (Boxer)/H.R. 395 (Salazar)

Cellulosic Ethanol Development and Implementation Act of 2007. DOE would be required to provide grants to eligible entities to carry out research, development, and demonstration projects on cellulosic ethanol and construct infrastructure that enables retail gas stations to dispense cellulosic ethanol for vehicle fuel to reduce the consumption of petroleum-based fuel. Introduced January 4, 2007; referred to Committee on Environment and Public Works.

S. 183 (Stevens)

Improved Passenger Automobile Fuel Economy Act of 2007. The corporate average fuel economy (CAFE) standard for passenger automobiles would be increased to 40 miles per gallon by 2017. Introduced January 4, 2007; referred to Committee on Commerce, Science, and Transportation.

S. 193 (Lugar)

Energy Diplomacy and Security Act of 2007. Expresses the sense of Congress on several aspects of international energy cooperation, with a special emphasis on increasing the use of sustainable energy sources. Urges the Department of State to

seek immediately to establish: (1) strategic energy partnerships with the governments of major energy producers and major energy consumers, and with governments of other countries; (2) petroleum crisis response mechanisms with the governments of China and India; (3) a Western Hemisphere energy crisis response mechanism; and (4) a regional-based ministerial Hemisphere Energy Cooperation Forum. Urges the President to place on the agenda for discussion at the Governing Board of the International Energy Agency the merits of establishing an international energy program application procedure. Urges the Hemisphere Energy Cooperation Forum (established in response to this act) to implement: (1) an Energy Crisis Initiative; (2) an Energy Sustainability Initiative; and (3) an Energy for Development Initiative. Encourages the Department of State to approach other governments in the Western Hemisphere to seek cooperation in establishing a Hemisphere Energy Industry Group of industry and government representatives, coordinated by the U.S. Government Introduced January 4, 2007; referred to Committee on Foreign Relations. Reported (S.Rept. 110-54) April 12, 2007.

S. 280 (Lieberman)/H.R. 620 (Olver)

Climate Stewardship and Innovation Act of 2007. A program to reduce greenhouse gas emissions would be established through a market-driven system of tradeable allowances and support for the deployment of new climate change-related technologies. Section 323 may be the most significant for energy efficiency and renewable energy: DOE would be directed to create a production incentive, funded with proceeds from an auction of tradeable emission allowances (specified in §162), for R&D on low-cost/no-cost (full life cycle basis) emission reduction technologies, with a maximum project value of $100 million. Also, Title III's Subtitle A on "Innovation Infrastructure" includes a study of technology transfer barriers and increase of innovation incentive from15% to 25% (§311), authorization for the Department of Commerce to create a nonprofit enterprise that supports technologies (§312), empowerment of national laboratories to establish spinoff enterprises (§313), a directive that the National Science Foundation create a plan to support technologies at universities (§314), a 50% grant program at the Department of Commerce to support deployment of technologies (§315), a study of patent law to facilitate technology deployment (§318), and information distribution about DOE's best practices for energy efficiency programs, (§319). Subtitle B includes DOE audit incentives for retail electricity suppliers (§351), R&D on transportation options such as renewable hydrogen, cellulosic ethanol, and biodiesel (§352), and energy audits for large commercial businesses (§353). Senate bill introduced January 12, 2007; referred to Committee on Environment and Public Works. House bill introduced January 22, 2007; referred to Committees on Energy and Commerce, Science and Technology, and Natural Resources. Hearing held July 24, 2007.

S. 298 (Murkowski)

Renewable Energy, Fuel Reduction, and Economic Stabilization and Enhancement Act of 2007. Also referred to as the REFRESH Act. DOE would be authorized funding for a grant program to support geothermal energy (§ 101), ocean energy (§ 102), and plug-in hybrid vehicles (§ 103). The National Highway Traffic Safety Administration (NHTSA) would be required to study and report on testing of CAFE standards (§ 201), and prescribe tire efficiency standards (§ 202). DOT would be authorized to create a grant program for states to support telecommuting to curb traffic congestion. Introduced January 16, 2007; referred to Committee on Finance.

S. 306 (Schumer)/H.R. 490 (McNulty)

Mohawk River Hydroelectric Projects Licensing Act of 2007. The Federal Energy Regulatory Commission (FERC) would be prohibited from issuing a new license for a hydroelectric project on the Mohawk River in New York state if the project has been operating under annual licenses for 10 or more years, unless FERC (1) issues a public notice that it will accept other valid license applications to develop or dispose of the project works or water resource (including certain nonpower license applications) and (2) approves a license application, according to the requirements of this act, if other valid license applications are submitted, or if FERC has issued a new license that is not yet final. Also, processing and approval procedures would be established. Any new power license issued for such a project would be required to include the same license conditions relating to the use of affected waters, as provided in the license for a specified Potomac Light & Power Company Project. Further, this act would be declared as applicable to specified hydroelectric projects for which (1) a new license has been issued at the time of this act but which has not yet become final under law, (2) there are pending judicial appeals, (3) the time has not yet lapsed for filing such appeals, or (4) there is a pending appeal of the Clean Water Act section 401 Water Quality Certificate. Senate bill introduced January 16, 2007; referred to Committee on Energy and Natural Resources. House bill introduced January 16, 2007; referred to Committee on Energy and Commerce.

S. 309 (Sanders)

Global Warming Pollution Reduction Act. The Clean Air Act would be amended to direct EPA to set milestones for reducing greenhouse gas emissions through a number of market-based programs and other means, of which many involve energy efficiency or renewable energy. Section 704 includes a declining emissions cap with a technology-indexed stop price, that involves energy efficiency and renewable energy technologies. Section 707 would set certain standards for vehicle CO_2 emissions, which may have a similar effect as vehicle energy efficiency standards, such as those in the Corporate Average Fuel Economy (CAFE) standard. It also calls for an NAS study of the potential for energy efficiency technologies to reduce emissions in the non-highway portion of the transportation sector. Sections 708 and 709 establish electric generation standards that call for improved energy efficiency. Section 711(c) would express the Sense of the Senate that federal funds for clean, low-carbon energy R&D and deployment should be increased by at least 100% each year for 10 years. Section 712 would direct EPA to create an energy efficiency performance standard that calls on retail electricity suppliers (utilities) to reduce electricity use, starting with 0.25% 2008 and rising steadily to 9.0% in 2020, along with a national system of tradable credits and a minimum fee of four cents per kilowatt-hour (kwh). Section 713 would require that EPA establish a renewable energy portfolio standard (RPS) with a target that starts at 5% in 2008 and rises steadily to 20% in 2020. Section 716 would call for the President to establish a task force to recommend a strategy for a foreign assistance program that supports low-carbon (renewable) and energy efficiency technologies. Section 719 would amend the renewable fuel standard (RFS) to require that at least 5 billion gallons of low-carbon renewable fuels come into commercial use in vehicles by 2015. Section 721 would require federal executive branch agencies to use vehicles that are "as fuel-efficient as practicable." Introduced February 8, 2007; referred to Committee on Environment and Public Works.

S. 317 (Feinstein)

Electric Utility Cap and Trade Act of 2007. Under Title I, Section 717 would create a Climate Action Trust Fund at the Department of the Treasury, with proceeds from the auctions of tradeable emission allowances established under Section 715. DOE would be directed to issue regulations that establish a "low- and zero-emitting carbon technologies program" and an "energy efficiency technology program" to support technology development and deployment with low-interest loans, loan guarantees, grants, and financial awards. The maximum shares of funding would be limited to 35% for development and deployment of low/no carbon technologies, 15% for development and deployment of energy efficiency technologies for buildings and industry, and 10% for R&D on energy efficiency technologies. Section 736 would establish offset credits for certain projects, including those that reduce emissions from fossil fuel combustion at residential and commercial buildings. Under Title II, section 204 would authorize the National Institute of Standards' Manufacturing Extension Partnership program promote emission-reduction technologies for use by small manufacturers. Introduced January 17, 2007; referred to Committee on Environment and Public Works.

S. 331 (Thune)/H.R. 570 (Rogers)

Moneys collected from violations of the corporate average fuel economy (CAFE) program would be placed in an Energy Security Fund to provide grants that support infrastructure needed to increase the availability of alternative fuels. Senate bill introduced January 18, 2007; referred to Committee on Energy and Natural Resources. House bill introduced January 18; referred to Committee on Energy and Commerce.

S. 339 (Bayh)/H.R. 670 (Engel)

Dependence Reduction through Innovation in Vehicles and Energy (DRIVE) Act. The national security and stability of the United States economy would be promoted by reducing oil dependence through the use of alternative fuels and new technology. Title I would establish a national oil savings target and action plan. Title II would set a broad range of policies for improving the fuel efficiency of vehicles. The provisions would include tire efficiency, idling reduction, plug-in hybrids, R&D, advanced diesel vehicles, manufacturing credits, consumer incentives, federal fleet requirements, reduced incentives for gas-guzzlers, and vehicle efficiency. Title III would set a broad range of policies for renewable energy and alternative fuels. The provisions would include modifications to tax credits for refueling property, biodiesel, and small ethanol producers. A minimum requirement would be set for cellulosic biofuels and sugar ethanol. Production incentives would be established for cellulosic biofuels. Low-interest loan and grant programs would be established for E85 fuel. Also, Transit-Oriented Development Corridors would be designated in certain urban areas. Senate bill introduced January 18, 2007; referred to Committee on Finance. House bill introduced January 24, 2007; referred to Committees on Energy and Commerce, Science and Technology, Ways and Means, Transportation and Infrastructure, and Oversight and Government Reform.

S. 357 (Feinstein)

Ten-in-Ten Fuel Economy Act. On May 8, 2007, the Senate Committee on Commerce, Science, and Transportation marked up the bill with an amendment in the nature of a substitute. The amended bill would require that the corporate average

fuel economy standard (CAFE) for new cars and light trucks be increased to 35 miles per gallon (mpg) by 2020 and require a 4% annual increase for 10 years thereafter. Starting in 2011, a 4% annual increase would also be required for medium- and heavy-duty trucks. The reported bill also includes a controversial provision that would criminalize price gouging in fuel markets during an energy emergency. Original bill introduced January 22, 2007; referred to Committee on Commerce, Science, and Transportation. Amended bill ordered to be reported by voice vote on May 8, 2007. Reported (S. Rept 110-278) with an amendment in the nature of a substitute on April 7, 2008.

S. 365 (Graham)/H.R. 632 (Lipinski)

H-Prize Act of 2007. DOE would be authorized to establish monetary prizes for achievements in overcoming scientific and technical barriers associated with hydrogen energy. Senate bill introduced January 23, 2007; referred to Committee on Energy and Natural Resources. House bill introduced January 23, 2007; referred to Committee on Science and Technology. Reported amended (H.Rept. 110-171) June 5, 2007. Passed House (408-8) June 6, 2007.

S. 386 (Chambliss)

Cellulosic Ethanol Incentive Act of 2007. The renewable fuel standard (RFS) would be increased from 7.5 billion gallons to 10.0 billion gallons in 2012 and to 33.3 billion gallons in 2030. Further, a standard for cellulosic ethanol would be created starting at 250 million gallons in 2010 and rising to 20.3 billion gallons in 2030. Introduced January 24, 2007; referred to Committee on Environment and Public Works.

S. 411 (Smith)/H.R. 1924 (Meek)

After 2006, the renewable energy production tax credit (PTC) would be modified to eliminate the reduction in the credit rate for power produced by open-loop biomass, small irrigation power, landfill gas, trash combustion, and hydropower facilities. Thus, the same credit rate would be allowed for all renewable resource facilities covered by the credit. Senate bill introduced January 26, 2007; referred to Committee on Finance. House Bill introduced April 18, 2007; referred to Committee on Ways and Means.

S. 425 (Smith)

The renewable energy production tax credit (PTC) would be expanded to include "kinetic hydropower" that is generated from river currents, tidal currents, ocean waves, or ocean thermal energy conversion. Introduced January 29, 2007; referred to Committee on Finance.

S. 426 (Nelson)

Biofuels Investment Trust Fund Act. All funds collected from the tariff on imports of ethanol would be invested in the R&D and deployment of biofuels, especially cellulosic ethanol produced from biomass feedstocks. Introduced January 29, 2007; referred to Committee on Energy and Natural Resources.

S. 485 (Kerry)

Global Warming Reduction Act of 2007. An economy-wide global warming pollution emission cap-and-trade program would be established to assist the

economic transition to new clean energy technologies, protect employees and affected communities, and protect companies and consumers from significant increases in energy costs. Introduced February 1, 2007; referred to Committee on Finance.

S. 489 (Warner)

Green Buildings Act of 2007. Green building requirements would be set to increase energy efficiency in the federal government. Similar to S. 506/H.R. 121. Introduced February 5, 2007; referred to Committee on Environment and Public Works.

S. 506 (Lautenberg)/H.R. 121 (Doyle)

High-Performance Green Buildings Act of 2007. Title I would establish a federal office of green buildings in the General Services Administration (GSA) to coordinate efforts in federal agencies. This activities of this office would include outreach to federal agencies, review related R&D findings, and the development of guidance for life-cycle costing and contracting. Section 107 would authorize $4 million for Title I activities. Title II would identify incentives and procurement practices to promote federal use of green building activities. Section 203 directs GAO to audit the performance of this act's provisions and report to Congress. Title III directs GSA to conduct an annual demonstration project from 2009 through 2014 and authorizes a total of $10 million for those projects, and it calls for annual demonstration projects at universities, with an additional $10 million authorization. Senate bill introduced February 6, 2007; referred to Committee on Environment and Public Works. House bill introduced January 4, 2007; referred to Committee on Energy and Commerce. Ordered to be reported (amended) June 6, 2007.

S. 541 (Feingold)

Rural Opportunities Act of 2007. The Farm Security Act of 2002 would be amended to promote local and regional support for sustainable bioenergy and biobased products. USDA would be authorized to create a program that makes grants to universities for R&D to support regional bioenergy development and production. The funding would also support state energy plans, other renewable energy and energy efficiency activities, and energy development by cooperatives. Further, the Government Accountability Office (GAO) would be directed to study policies to increase incentives for bioenergy and to help maintain local ownership of energy facilities. Also, the renewable energy program (§ 9006) of the Farm Security Act of 2002 would be reauthorized. Introduced February 8, 2007; referred to Committee on Agriculture.

S. 590 (Smith)/H.R. 550 (McNulty)

Securing America's Energy Independence Act of 2007. The residential investment tax credit for energy efficient property, and the commercial investment tax credit for solar energy property and qualified fuel cell property, would be extended for eight years, from the end of 2008 to the end of 2016. Also, such credits would be allowed to be applied against alternative minimum tax liability. The definition of "energy property" would be expanded to include certain equipment that uses solar energy to generate or store excess electricity. A special credit amount based on kilowatt capacity would be set for solar photovoltaic energy property and residential energy efficient property. A tax credit would be allowed for the full

amount of qualified photovoltaic property expenditures. That credit is currently limited to 30%. A three-year recovery period would be allowed for accelerated depreciation for solar energy and fuel cell property. Senate bill introduced February 14, 2007; referred to Committee on Finance. House bill introduced January 18, 2007; referred to Committee on Ways and Means.

S. 672 (Salazar)

Rural Community Renewable Energy Bonds Act. Tax-exempt bond financing would be made available for qualified renewable energy electricity production facilities that have less than 40 megawatts of capacity. The facilities could use wind, biomass, solar power, hydropower, and other renewable resources. Introduced February 16, 2007; referred to Committee on Finance.

S. 673 (Salazar)/H.R. 1772 (Blumenauer)

Rural Wind Energy Development Act. An investment tax credit (§2) and accelerated depreciation (§3) would be established for the installation of wind energy property by rural homeowners, farmers, ranchers, and small businesses. The tax credit is capped at $3,000/kilowatt and more than 50% of the electricity must be used on-site. Senate bill introduced February 16, 2007; referred to Committee on Finance. House bill introduced March 29, 2007; referred to Committee on Ways and Means.

S. 696 (Baucus)

Energy Research Act of 2007. An Advanced Research Projects Administration - Energy (ARPA-E) would be established independent of, but in coordination with, the Department of Energy. An authorization of $5.5 billion over five years would support acceleration of energy innovations, including those focused on alternative energy sources and energy efficiency. Introduced February 27, 2007; referred to Committee on Energy and Natural Resources.

S. 701 (Clinton)

Strategic Energy Fund Act of 2007. A temporary fee on major oil company profits would be imposed, and policies for royalties would be revised, raising $50 billion for a Strategic Energy Fund. The Fund would be used to (1) expand the renewable energy electricity production tax credit (PTC) for five years; (2) increase tax incentives for hybrid, clean diesel, and other advanced vehicles; (3) create incentives for automobile manufacturers; (4) put $500 million toward advanced battery development to support plug-in hybrid vehicles; (5) extend the ethanol tax credit to 2012; (6) for cellulosic ethanol, provide $2 billion for R&D and loan guarantees to cover the first billion gallons of production capacity (7) increase incentives for energy efficiency in homes and offices; and (8) create a $9 billion Advanced Research Projects Agency. Introduced February 28, 2007; referred to Committee on Finance.

S. 761 (Reid)/H.R. 2272 (Gordon)

America COMPETES Act of 2007. Section 2005 (Division B) would establish an Advanced Research Projects Authority-Energy (ARPA-E) at DOE. The new Authority would focus on overcoming the "long-term and high-risk technological barriers" in the development of renewable energy, energy efficiency, and other technologies. "Such sums" as necessary would be authorized for each fiscal year from 2008 through 2011. S. 761 introduced March 5, 2007. Passed Senate (88-8),

amended, April 25, 2007. Senate incorporated S. 761 into H.R. 2272 as an amendment in the nature of a substitute, and passed the Senate version of H.R. 2272 by unanimous consent on July 19, 2007. House bill introduced May 10, 2007; referred to Committee on Science and Technology. Passed House May 21, 2007.

S. 767 (Obama)/H.R. 1506 (Markey)

CAFE Fuel Economy Reform Act of 2007. DOT's National Highway Traffic Safety Administration (NHTSA) would be directed to increase new passenger car fuel economy by 4% annually for model year (MY) 2009 through MY2011 and for MY2013 through MY2018, attaining no less than 35 mpg by MY2018. Senate bill introduced March 6, 2007; referred to Committee on Commerce, Science, and Transportation. House bill introduced March 14, 2007; referred to Committee on Energy and Commerce.

S. 768 (Obama)/H.R. 1506 (Markey)

CAFE Fuel Economy Reform Act of 2007. DOT's National Highway Traffic Safety Administration (NHTSA) would be directed to increase new passenger car fuel economy by 4% annually for model year (MY) 2009 through MY2011 and for MY2013 through MY2018, attaining no less than 35 mpg by MY2018. Senate bill introduced March 6, 2007; referred to Committee on Finance. House bill introduced March 14, 2007; referred to Committee on Energy and Commerce.

S. 818 (Sanders)

National Priorities Act of 2007. Certain tax deductions established for 2001 through 2004 would be rescinded, and some Department of Defense appropriations would be reduced. From the revenue amounts made available, Section 5 would provide $27.1 billion for programs to increase energy efficiency and to increase investment in renewable energy, public transit, and high-speed rail. Introduced March 8, 2007; referred to Committee on Finance.

S. 822 (Snowe)/H.R. 1385 (McDermott)

EXTEND the Energy Efficiency Incentives Act of 2007. Section 101 would create a new performance-based investment tax credit for residential energy efficiency improvements that produce an energy savings of 20% or more. The credit would terminate at the end of 2011. Section 102 would extend the existing (EPACT §1333) residential tax credit for energy efficiency measures in existing homes for four years, from the end of 2007 through the end of 2011. Section 201 would extend the existing (EPACT §1332) tax credit for energy efficiency measures in new homes for three years, from the end of 2008 through the end of 2011. Section 202 would extend the existing (EPACT §1331) tax deduction for energy efficiency measures in commercial buildings through the end of 2012 and increase the amount of the deduction. Section 203 would establish a new tax deduction for energy efficient low-rise buildings. Section 204 would expand the list (EPACT §1331) of energy efficiency measures in commercial buildings that qualify for a tax deduction and make them eligible through the end of 2011. Section 301 would establish a new tax credit for energy savings training and certification costs and certification equipment expenditures. Senate bill introduced March 8, 2007; referred to Committee on Finance. House bill introduced March 7, 2007; referred to Committee on Ways and Means.

S. 828 (Baucus)

On-Farm Energy Production Act. The Environmental Quality Incentives Program (EQIP) authorized under the Farm Security Act of 2002 would be amended to provide incentives worth up to about 50% of the cost for farmers and ranchers to install wind, solar, and biodiesel equipment to produce energy need for farm operations. Introduced March 8, 2007; referred to Committee on Agriculture.

S. 838 (Smith)/H.R. 1838 (Sherman)

United States-Israel Energy Cooperation Act. Enhanced cooperation would be focused on renewable energy R&D. DOE's Office of Energy Efficiency and Renewable Energy would be directed to administer a grant program that supports this cooperation and to report on its results. A revolving fund, the Energy Research and Development Activities Fund, would be created at the Department of the Treasury. Also, $20 million per year would be authorized for FY2008 through FY2014. Senate bill introduced March 12, 2007; referred to Committee on Energy and Natural Resources. Reported amended (S.Rept. 110-176) September 17, 2007. House bill introduced March 29, 2007; referred to Committee on Energy and Commerce. Ordered Reported July 25, 2007.

S. 859 (Harkin)/H.R. 2426 (Boswell)

Ethanol Infrastructure Expansion Act of 2007. A DOE program would be established to award funds to study the feasibility of constructing dedicated ethanol pipelines. A funding authorization of $1 million would be set. Senate bill introduced March 13, 2007; referred to Committee on Energy and Natural Resources. House bill introduced May 22, 2007; referred to Committee on Transportation and Infrastructure.

S. 872 (Lincoln)

The biodiesel income tax credit and the biodiesel excise tax credit would be extended for nine years, from the end of 2008 to the end of 2017. Introduced March 14, 2007; referred to Committee on Finance.

S. 875 (Dorgan)

Security and Fuel Efficiency Energy (SAFE) Act of 2007. A goal would be set to improve energy security through a 50% reduction in the oil intensity of the economy by 2030. This would be achieved, in part, by raising the fuel efficiency of the vehicular transportation fleet and by increasing the availability of alternative fuel sources. Introduced March 14, 2007; referred to Committee on Finance. Hearing held May 8, 2007.

S. 894 (Lincoln)/H.R. 139 (Granger)

Idling Reduction Tax Credit Act of 2007. A business tax credit of 25% of the cost of a qualifying idling reduction device, up to $1,000, would be created. Defines "qualifying idling reduction device" as any device that is (1) installed on a heavy-duty diesel-powered on-highway vehicle to provide services that would otherwise require the operation of the main drive engine while the vehicle is temporarily parked or stationary; and (2) certified by DOE to reduce long-duration idling. DOE would be directed to publish standards for certifying such devices. Senate bill introduced March 15, 2007; referred to Committee on Finance. House bill introduced January 4, 2007; referred to Committee on Ways and Means.

S. 919 (Menendez)/H.R. 1551 (Kind)

Healthy Farms, Foods, and Fuels Act of 2007. Title II would support energy programs at USDA. This would include reauthorization of energy audit and renewable energy development programs (§ 203), renewable energy systems and energy efficiency programs (§ 204), bioenergy (§ 205), and biomass R&D (§ 206). Senate bill introduced March 20, 2007; referred to Committee on Agriculture. House bill introduced March 15, 2007; referred to Committees on Agriculture, Education and Labor, and Armed Services.

S. 987 (Bingaman)

Biofuels for Energy Security and Transportation (BEST) Act of 2007. The national requirement for renewable fuels would be extended and increased. It would start with 8.5 billion gallons in 2008 and rise to 36 billion gallons in 2022. Starting in 2016, an increasing portion of the requirement would have to be met with advanced biofuels, including cellulosic ethanol, biobutanol, and other fuel derived from unconventional biomass feedstocks. Also, the DOE bioenergy R&D funding authorization would be increased by 50% from FY2007 through FY2009 to establish seven bioenergy research centers, research grants for states with low rates of ethanol production, and loan guarantees for renewable fuel facilities. Introduced March 26, 2007; referred to Committee on Energy and Natural Resources. Hearing held April 12, 2007. Incorporated into S. 1321.

S. 962 (Bingaman)/H.R. 1933 (Udall)

Department of Energy Carbon Capture and Storage Research, Development, and Demonstration Act of 2007. This bill does not support energy efficiency or renewable energy. However, its provisions for carbon sequestration are a key part of the omnibus energy bills, H.R. 3221 and the Senate version of H.R. 6. DOE would be directed to: (1) carry out fundamental science and engineering research to develop and document new approaches to capture and store carbon dioxide; (2) ensure that fundamental research is appropriately applied to energy technology development activities and the field testing of carbon sequestration activities; (3) promote regional carbon sequestration partnerships to conduct geologic sequestration tests involving carbon dioxide in a variety of geological settings; and (4) conduct at least seven initial large-volume sequestration tests for geological containment of carbon dioxide. Further, DOE would be directed, in making competitive awards, to give preference to proposals from partnerships among industrial, academic, and government entities. Senate bill introduced March 22, 2007; referred to Committee on Energy and Natural Resources. Hearing (S. Hrg. 110-83) held April 16, 2007. Incorporated into S. 1321 and then into the Senate-passed version of H.R. 6. House bill introduced April 14, 2007; referred to Committee on Science and Technology. Reported amended (H.Rept. 110-301) August 3, 2007.

S. 992 (Boxer)/S. 1637 (Inhofe)

Public Buildings Cost Reduction Act of 2007. The General Services Administration (GSA) would be directed to establish a program to speed the use of cost-effective energy-efficient lighting equipment and other technologies and practices. Further, GSA would be required to prepare a five-year plan to replace inefficient lighting in GSA buildings using available funds. Also, an EPA matching grant program would be created to help local governments renovate buildings to improve energy efficiency. For this program, $20 million would be authorized.

Introduced March 27, 2007; referred to Committee on Environment and Public Works. Reported (S.Rept. 110-60) May 3, 2007.

S. 1000 (Stevens)

Telework Enhancement Act of 2007. All federal employees would be eligible for telework, unless shown otherwise by their employer. Also, each agency would be required to designate at least one full-time employee to be a Telework Managing Officer. This person would implement telework policy and serve as liaison between employees and managers. Introduced March 27, 2007; referred to Committee on Homeland Security and Governmental Affairs.

S. 1007 (Lugar)

United States - Brazil Energy Cooperation Pact of 2007. The Secretary of State would be directed to work with the Government of Brazil and other foreign governments to form partnerships that aim to accelerate biofuels production, cellulosic ethanol research, and infrastructure improvements. The goals are to alleviate poverty, create jobs, and increase income, while improving energy security and protecting the environment. Programs and activities that would be established include a regional energy forum, feasibility studies, grants, extension services, carbon (CO_2) trading, and a study of the ethanol tariff. A funding authorization of $59 million would be set for FY2008. Introduced March 28, 2007; referred to Committee on Foreign Relations.

S. 1016 (Menendez)/H.R. 2848 (Cardoza)

Solar Opportunity and Local Access Rights (SOLAR) Act. The Public Utility Regulatory Policies Act (PURPA) would be amended to establish net metering, by allowing home solar equipment to connect to the grid and guaranteeing that excess power could be sold back to the utility at a fair rate. Homeowners associations would be prohibited from restricting access to solar and local permit fees would be reduced. Introduced March 28, 2007; referred to Committee on Energy and Natural Resources.

S. 1020 (Hutchison)

Creating Renewable Energy through Science and Technology (CREST) Act. The act establishes and authorizes funding for a Council on Renewable Energies (CORE) at the National Science Foundation. The Council would advise Congress on renewable energy strategy including offshore wind production, solar power, geothermal energy, alternative biofuels, and wave energy. It would also facilitate collaboration across federal agencies. Introduced March 28, 2007; referred to Committee on Energy and Natural Resources.

S. 1055 (Biden)/H.R. 1915 (Castle)

American Automobile Industry Promotion Act of 2007. DOE would be directed to establish a program for RD&D, and commercial application of innovative electric drive transportation technology (i.e. plug-in hybrid vehicles, plug-in hybrid fuel cell vehicles, engine dominant hybrid vehicles, and fuel cell vehicles). DOE would be required to arrange with the National Academy of Sciences to assess state-of-the-art battery technologies that could be applied to electric drive transportation. Also, DOE would be directed to carry out an Advanced Battery Initiative to support RD&D and commercial application of battery technologies in on-road or non-road vehicles. Requirements for the lean burn vehicle technology credit would be modified. EPA

would be empowered to define biodiesel fuel and biodiesel fuel blends, and would be required set standards for each biodiesel blend. Senate bill introduced March 29, 2007; referred to Committee on Finance. House Bill introduced April 18, 2007; referred to Committees on Science and Technology, Ways and Means, and Energy and Commerce.

S. 1059 (Clinton)

Zero Emissions Building Act. Federal building energy efficiency standards would be improved. Starting in 2007, federal buildings would be designed to use 50% less fossil energy (and greenhouse gas emissions) than a comparable, previously built federal building. The amount of fossil energy reduction would increase step-wise, reaching 100% (zero emissions) by 2030. Introduced March 29, 2007; referred to Committee on Energy and Natural Resources.

S. 1072 (Stevens)

Energy efficiency (and other provisions) of Executive Order 13423 would be codified into public law. Energy intensity at each agency would be required to be reduced by 3% annually through 2014. Each agency would be required to meet half of its renewable energy requirement with "new" sources. Energy efficiency goals would be set for water use, vehicles, and acquisition of products and services. Lighting efficiency would also be required to increase. Introduced March 29, 2007; referred to Committee on Homeland Security and Governmental Affairs.

S. 1073 (Feinstein)

Clean Fuels and Vehicles Act. The Clean Air Act would be amended to promote the use of fuels with low life-cycle CO_2 emissions, establish a CO_2 performance standard for motor vehicle fuels, and require a significant decrease in CO_2 from motor vehicles. By 2016 automakers would be required to reduce tailpipe emissions by 30% below 2002 levels. Also, by 2015, oil refiners and importers would be required to reduce GHG emissions by 3% below 2007 levels. Further, EPA would be required to quantify total emissions of each fuel and develop a fuel labeling program. Additionally, a carbon-credit trading program would be established. Introduced March 29, 2007; referred to Committee on Environment and Public Works.

S. 1076 (Inouye)/H.R. 1356 (Oberstar)

Section 606 would require the Federal Aviation Administration (FAA) to establish a research consortium with goals to increase aircraft fuel efficiency 25% relative to 1997 subsonic aircraft technology and to determine the feasability of using alternative fuels in aircraft. Senate bill introduced March 29, 2007; referred to Committee on Finance. House bill introduced March 6, 2007; referred to Committees on Transportation and Infrastructure, Science and Technology, and Ways and Means.

S. 1101 (Lincoln)/H.R. 2083 (Gordon)

The energy efficiency regulatory standard for residential clothes washers would be put into law. The standard for residential dishwashers would by increased by 35% in 2010 and thereafter. The standard for residential dehumidifiers would be increased in 2012 and thereafter. Also, DOE would be directed to set a new standard for refrigerators in a rulemaking that would take effect by 2014. Senate bill introduced

April 12, 2007; referred to Committee on Energy and Natural Resources. House bill introduced May 1, 2007; referred to Committee on Energy and Commerce.

S. 1106 (Thune)

Ethanol Tariff Extension and Caribbean Basin Initiative Investigation Act. The U.S. tariff on imported ethanol would be extended for two years, from the end of 2008 to the end of 2010. Also, the Department of the Treasury would be required to prepare a study of duty-free ethanol imports and report to Congress on its findings. Introduced April 12, 2007; referred to Committee on Finance.

S. 1115 (Bingaman)

Energy Efficiency Promotion Act of 2007. Title I would promote advanced lighting technology by requiring all federal lighting to be Energy Star rated by 2010 (§ 101), expanding efficiency standards for incandescent reflector lamps (§ 102), creating the "Bright Tomorrow" lighting prizes for solid state (LED) lighting developments (§ 103), and establishing a "Sense of the Senate" to pass mandatory energy efficiency performance targets for lighting products (§ 104). Title II would expedite new energy efficiency standards by legislating standards for residential boilers (§ 207), electric motors (§ 209), and some home appliances (§ 210, same as S. 1101/H.R. 2083). DOE would be directed to set standards by rulemaking for furnace fans (§ 203). Also, DOE would be allowed to set standards for multiple components (§ 201) and regional standards for heating and cooling equipment (§ 202). Further, it would authorize R&D on improved efficiency for appliances and buildings in cold climates (§ 211) and provide incentives for the manufacture of high-efficiency consumer products (§ 212). Other provisions would guide expedited rulemakings (§ 204), clarify limits to federal preemption of state standards (§ 205), and require Energy Guide labels for several types of consumer electronic products. Title III promotes high-efficiency vehicles, advanced batteries, and energy storage. Section 301 would authorize funding for a DOE R&D program on light-weight materials. Section 302 would provide loan guarantees for facilities that manufacture fuel-efficient vehicles. Section 303 would authorize awards for qualified investments to refurbish manufacturing facilities that produced advanced technology vehicles. Section 304 would authorize a 10-year R&D program to support U.S. competitiveness in global energy storage markets and a five-year R&D program for electric drive technologies. Title IV would set several energy efficiency goals that include reducing gasoline use 45% by 2030 (§ 401), improving energy productivity to 2.6% by 2012 (§ 402), and authorizing funding to educate consumers about how to save energy. Title V would promote federal leadership in energy efficiency and renewable energy. Section 501 would require federal and state fleets to reduce petroleum use 30% by 2016. Section 502 would increase the federal purchase of renewable energy to 15% by 2015. Section 503 would authorize the Energy-Saving Performance Contracts (ESPCs) program permanently. Section 504 would require that federal buildings reduce energy use 30% by 2015. Section 505 would require the identification of federal sites for combined heat and power (CHP). Section 506 would require that fossil energy use in federal buildings be reduced 50%, compared with similar buildings from the past that were not subject to the standard. New and renovated buildings would be required to attain "carbon neutral" status by 2030. Section 507 would require HUD to update efficiency standards for all public and assisted housing. Title VI would improve energy efficiency assistance to state and local governments by increasing the authorization for the DOE Weatherization

program (§ 601), reauthorizing the State Energy program (§ 602), requiring state utility regulatory commissions to consider federal standards to promote energy efficiency, authorizing NREL to provide technical assistance (§ 604), authorizing grants to local governments (§ 605), authorizing grants to universities for demonstration projects (§ 606), authorizing workforce training programs (§ 607), and authorizing fund for education programs to reduce school bus idling (§ 608). Introduced April 16, 2007; referred to Committee on Energy and Natural Resources. Hearing held April 23, 2007. Incorporated into S. 1321.

S. 1118 (Dorgan)

Fuel Efficiency Energy Act of 2007. Starting in model year 2013, corporate average fuel economy (CAFE) standards would increase by 4% annually, through 2030. However, DOT, in consultation with the National Academy of Sciences, may prescribe a lower standard if it determines that the increase would not be technologically achievable, would compromise safety, or would not be cost-effective. Introduced April 16, 2007; referred to Committee on Commerce, Science, and Transportation.

S. 1151 (Obama)/H.R. 1920 (Inslee)

Health Care for Hybrids Act. A program would be created to provide up to 10% of the health care costs for retired auto industry employees. In exchange, each company would agree to invest half of its reduced costs into R&D, retooling, manufacture, or employee retraining for the use of fuel-efficient and alternative fuel technologies in its vehicle lines. Senate bill introduced April 18, 2007; referred to Committee on Finance. House bill introduced April 18, 2007; referred to Committees on Ways and Means and on Energy and Commerce.

S. 1154 (Nelson)/H.R. 2038 (Kind)

Biogas Production Incentive Act of 2007. A business tax credit for "biogas" production and sales would be established. Eligible biogas must be derived by processing a qualified feedstock — such as livestock manure and other waste material — in an anaerobic digester that contains at least 60% methane and carbon dioxide and trace gases. USDA would be directed to make counter-cyclical payments to qualified biogas producers for facility development. Also, USDA would establish loans, loan guarantees, and grants for qualified providers to collect and transport feedstocks to a biogas facility or for equipment and facilities that help collect and transport feedstocks. Senate bill introduced April 18, 2007; referred to Committee on Finance. House bill introduced April 25, 2007; referred to Committees on Ways and Means and on Agriculture.

S. 1158 (Inhofe)

Alternative Fuel Standard Act of 2007. This bill would implement part of the 20-in-10 proposal presented by the President in the State of the Union 2007 speech. The current renewable fuel standard (RFS) would be replaced by an alternative fuel standard (AFS) that requires 10 billion gallons of "alternative" fuels in 2010, rising to 35 billion gallons in 2017. Qualifying fuels would be expanded beyond renewable fuels, such as ethanol, to include transportation fuels derived from natural gas, coal, and hydrogen and other sources. Introduced April 19, 2007; referred to Committee on Environment and Public Works.

S. 1165 (Cardin)

American Green Building Act of 2007. Federal buildings would be required to be designed, constructed, and certified to meet or exceed the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) "silver" rating for green buildings. However, the head of the agency with jurisdiction over the building may decide that, due to energy or national security requirements, achievement of such a rating would be impracticable. Introduced April 19, 2007; referred to Committee on Environment and Public Works.

S. 1207 (Landrieu)

Giving Reductions to Energy Efficient New Buildings Act. Also referred to as the GREEN Buildings Act. The investment tax deduction for energy efficient commercial buildings would be extended from the end of 2008 to the end of 2013. Further, the deduction would be increased from $1.80 to $2.25 per square foot. Introduced April 25, 2007; referred to Committee on Finance.

S. 1238 (Casey)

Revenues obtained by rescinding certain tax loopholes and by imposing a windfall profits tax on integrated oil companies would be put into a reserve fund to support biofuels R&D and infrastructure development. Introduced April 26, 2007; referred to Committee on Finance.

S. 1242 (Tester)

A crop insurance pilot program would be established for experimental biofuel crops. Loans and loan guarantees would be provided to producers of experimental biofuel crops. Grants would be established for research facilities and universities for studies of crops as animal feed and for research on harvesting and planting techniques for such crops. Introduced April 26, 2007; referred to Committee on Agriculture.

S. 1291 (Thune)

Wind Energy Development Act of 2007. Section 2 would extend the renewable energy production tax credit (PTC) for four years, through the end of 2012. After 2007, the annual inflation adjustment to the credit would cease. Section 3 would extend the provision for clean renewable energy "tax credit" bonds for four years, through the end of 2012. Also, the total annual limit for the bonds would be increased to $2.25 billion, including a limit of $725 million per year for governments, and $250 million per year for American Indian tribes. Introduced May 3, 2007; referred to Committee on Finance.

S. 1297 (Boxer)

Advanced Clean Fuels Act of 2007. The volume-based Renewable Fuel Standard is currently set at 7.5 billion gallons per year by 2012. The bill would set a new standard of 12.0 billion gallons by 2011, rising to 35.0 billion gallons by 2025. Introduced May 3, 2007; referred to Committee on Environment and Public Works.

S. 1321 (Bingaman)/H.R. 2556 (Wilson)

Energy Savings Act of 2007. This bill incorporates provisions from S. 987 and S. 1115. Title I is the Biofuels for Energy Security and Transportation Act (many provisions are similar to provisions in S. 987). Title II is the Energy Efficiency

Promotion Act (many provisions are similar to provisions in S. 1115). For a detailed summary of this bill see H.R. 2556. Senate bill introduced May 7, 2007; referred to Committee on Energy and Natural Resources. Reported (S.Rept. 110-65) May 7, 2007. House bill introduced May 24, 2007; referred to Committees on Energy and Commerce, Science and Technology, Transportation and Infrastructure, Oversight and Government, and Financial Services.

S. 1324 (Obama)

National Low-Carbon Fuel Standard Act of 2007. A standard would be set that reduces greenhouse gas emissions from transportation fuel. The standard would also have the effect of improving fuel efficiency. The production of biofuels would be increased by setting a low-carbon fuel standard for petroleum-based fuels. The Renewable Fuels Standard (RFS) would be increased from 12 billion gallons to 15 billion gallons of renewable fuel by 2012. Additional standards would be established to prevent damage to air, land, and water quality caused by biofuels production. Introduced May 7, 2007; referred to Committee on Environment and Public Works.

S. 1346 (Mikulski)/H.R. 1766 (Van Hollen)

Chesapeake's Healthy and Environmentally Sound Stewardship of Energy and Agriculture Act (CHESSEA) Act of 2007. Under §9003 of the Farm Security Act, Section 11 would create a USDA program that provides grants, loans, and loan guarantees for biofuels and biorefineries in Chesapeake Bay Watershed states. From FY2008 through FY2013, the Commodity Credit Corporation (CCC) would provide program funding of $100 million per year. Under § 9006 of the Farm Security Act, Section 12 would provide grants and loans for renewable energy and energy efficiency projects, capped at 25% of the project cost. CCC funding for this program would start at $60 million in FY2008 and increase to $250 million in FY2012. Introduced May 9, 2007; referred to Committee on Agriculture.

S. 1358 (Grassley)

10 by 10 Act. The current renewable fuel standard that would reach 7.5 billion gallons per year by 2012 would be replaced with a standard that requires all gasoline sold for use in motor vehicles to contain 10% renewable fuel by 2010 and thereafter. Introduced May 10, 2007; referred to Committee on Environment and Public Works.

S. 1370 (Cantwell)

The Clean Energy Investment Assurance Act of 2007. Section 2 would extend the renewable energy electricity production tax credit (PTC) for five years and make it apply to thermal energy production too. Section 3 would, after the end of 2008, raise the volume cap for clean renewable energy bonds from $1.2 billion per year to $5.0 billion per year. Section 4 would extend the residential energy efficient (solar) property investment tax credit for eight years, extend it to include storage air conditioners, and modify the cap. Section 5 would extend the business investment tax credit for solar equipment for eight years, expand it to include storage air conditioners, and modify the cap. Section 6 would extend the nonbusiness energy-efficient equipment investment tax credit for five years and raise the cap for certain equipment. Section 7 would extend for five years the investment tax credit for building new energy-efficient homes. Section 8 would extend for five years the deduction for energy efficient commercial buildings, and increase the maximum deduction. Section 9 would make qualified energy management devices eligible for

a five-year depreciation recovery period. Introduced May 11, 2007; referred to Committee on Finance.

S. 1389 (Obama)/H.R. 1728 (Honda)

Global Warming Education Act. Section 4 would establish a national education campaign to disseminate information on and promote implementation of new technologies, programs, and incentives related to energy efficiency and renewable energy. Senate bill introduced May 14, 2007; referred to Committee on Health, Education, Labor, and Pensions. House bill introduced March 29, 2007; referred to Committee on Science and Technology.

S. 1403 (Klobuchar)

Farm-to-Fuel Investment Act. USDA would designate "bioenergy cropsheds" located within 50 miles of an existing or planned biofuels refinery. From 2008 through 2012, USDA's Commodity Credit Corporation would provide a total of $350 million in financial assistance to help farmers convert to bioenergy crops. USDA would provide the assistance through three-year contracts with producers that switch to bioenergy crop production. Introduced May 15, 2007; referred to Committee on Agriculture.

S. 1407 (Pryor)

Smart Buildings Act. A 20-year depreciation cost recovery period, calculated on a straight line basis, would be created for energy efficient heating, ventilation, air conditioning, and commercial refrigeration systems installed in nonresidential buildings and placed in service during calendar years 2008 through 2011. Introduced May 16, 2007; referred to Committee on Finance.

S. 1411 (Lautenberg)

The Environmental Protection Agency would establish an office to measure and report on greenhouse gas emissions from federal agencies. Energy-related emissions would be a key focus. Introduced May 16, 2007; referred to Committee on Environment and Public Works.

S. 1419 (Reid)

Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007. This omnibus bill is derived from four other bills. Titles I, II, and III are taken from S. 1321/H.R. 2556. Title IV is taken from S. 992, as reported by the Senate Committee on the Environment on May 3, 2007. Titles V and VI are taken from the amended version of S. 357, as reported May 8, 2007, by the Senate Committee on Commerce, Science, and Transportation. Title VII is taken from S. 193, as reported by the Senate Committee on Foreign Relations on April 12, 2007. The individual title popular names are: Title I, Biofuels for Energy Security and Transportation; Title II, Energy Efficiency Promotion; Title III, Carbon Capture and Storage Research, Development, and Demonstration; Title IV, Public Buildings Cost Reduction; Title V, Corporate Average Fuel Economy Standards; Title VI, Price Gouging; and Title VII, Energy Diplomacy and Security. Introduced May 17, 2007; ordered Placed on Senate Legislative Calendar under General Orders. Calendar No. 156.

S. 1422 (Lugar)

Farm Risk Management Act for the 21st Century. The Farm Security Act of 2002 would be amended to revise and extend programs for federal biobased product procurement, biorefinery development, and rural renewable energy development. Also, current renewable and energy efficiency provisions would be replaced with the Rural Energy for America program, which would be funded through FY2014. Introduced May 17, 2007; referred to Committee on Finance.

S. 1491 (Klobuchar)

Ethanol Education and Expansion Act of 2007. Section 2 would direct USDA to provide $20 million from the Commodity Credit Corporation to fund grants to fuel producers for the installation of ethanol-85% (E85) fuel infrastructure. Section 3 would provide competitive grants to educate certain parties about the benefits of E85 fuel use. The targets of the education may include public and private vehicle fleet operators, other interested entities, and the general public. Introduced May 25, 2007; referred to Committee on Energy and Natural Resources.

S. 1424 (Schumer)

Farm, Nutrition, and Community Investment Act of 2007. Title VII has provisions for farm-related energy efficiency and renewable energy. Section 7002 would direct the federal government to procure biobased products. Section 7003 would provide grants for biorefinery development. Section 7004 would create an energy audit and renewable energy development program. Section 7005 would require USDA to provide grants and production credits to encourage cooperative development of renewable energy systems and energy efficiency improvements. Section 7006 would extend certain provisions for biomass R&D. Section 7007 would extend certain biomass research and extension provisions for six years and expand it to include grants to universities for work on climate change. Section 7008 would direct USDA to provide grants and loans for cellulosic ethanol development on industrial lands. Section 7009 would establish an energy efficiency rebate program for farmers and ranchers. Section 7010 would provide grants for research on alternative uses for biofuel byproducts. Section 7011 would establish a national net metering program for farm energy production. Introduced May 17, 2007; referred to Committee on Finance.

S. 1434 (Pryor)/H.R. 2528 (Markey)

Federal Building Renewal and Energy Savings Act of 2007. Section 2 would require each federal agency to conduct an energy and water assessment of its buildings and facilities every three years, implement water and energy efficiency saving measures based on the assessment, use a web-based tracking system to certify compliance, and record energy use data into a benchmarking system such as the Energy Star Portfolio Manager. Section 3 would promote federal agency use of energy savings performance contracts (ESPCs) and utility energy service contracts. Senate bill introduced May 12, 2007; referred to Committee on Energy and Natural Resources. House bill introduced May 24, 2007; referred to Committee on Energy and Commerce.

S. 1491 (Klobuchar)

Ethanol Education and Expansion Act of 2007. Section 2 would direct USDA to provide $20 million from the Commodity Credit Corporation to fund grants to fuel

producers for the installation of ethanol-85% (E85) fuel infrastructure. Section 3 would provide competitive grants to educate certain parties about the benefits of E85 fuel use. The targets of the education may include public and private vehicle fleet operators, other interested entities, and the general public. Introduced May 25, 2007; referred to Committee on Energy and Natural Resources.

S. 1497 (Cardin)

Energy Independence Act. A bipartisan Commission on "energy independence" would be established. Its task would be to study and review policy changes that are needed for the United States to achieve energy independence. Introduced May 24, 2007; referred to Committee on Energy and Natural Resources.

S. 1508 (Dorgan)

Clean Energy Production Tax Incentives Act. Increases the rate of the tax credit for producing electricity from renewable sources and extends the credit through 2018. Extends the limitation amount for clean renewable energy bonds through 2017. Extends the tax credit for investment in fuel cell and solar property through 2018. Introduced May 24, 2007; referred to Committee on Finance.

S. 1511 (Akaka)/H.R. 2036 (Inslee)

Marine and Hydrokinetic Renewable Energy Promotion Act. DOE would be directed to create a marine and hydrokinetic renewable energy R&D program. Section 4 would establish a fund to make loans to projects producing marine and hydrokinetic renewable energy. Section 5 would require programmatic environmental impact statements for deployment in U.S. navigable waters. Section 6 would expand the renewable electricity production tax credit (PTC) to cover this equipment. Section 7 would expand the 30% business investment credit and five-year depreciation to include this equipment. House bill introduced April 25, 2007; referred to Committees on Energy and Commerce, Science and Technology, Ways and Means, and Natural Resources. Senate bill introduced May 24, 2007; referred to Committee on Finance.

S. 1525 (Smith)/H.R. 2137 (Levin)

Super-Efficient Appliance Incentives and Market Transformation Act of 2007. EPACT (P.L. 109-58) established investment tax credits for manufacturers of certain types of energy efficient appliances. The bill would modify the credit for certain dishwashers, clothes washers, refrigerators, and dehumidifiers produced after 2007. The credit would be capped at $100 million per year. Senate bill introduced May 24, 2007; referred to Committee on Finance. House bill introduced May 3, 2007; referred to Committee on Ways and Means.

S. 1526 (Stevens)

Bright Idea Act of 2007. DOE would be directed to establish energy efficiency standards for general service lamps manufactured or sold after 2013. Reports on mercury use and lamp labeling would also be required. Introduced May 24, 2007; referred to Committee on Energy and Natural Resources.

S. 1527 (Stevens)

A tax credit would be established for renovation and construction of manufacturing facilities for making energy-efficient incandescent lamps. Introduced May 24, 2007; referred to Committee on Finance.

S. 1531 (Reid)

Clean Renewable Energy and Economic Development Incentives Act of 2007. Title I of S. 1531 would extend three existing tax incentives and establish six new ones.[59] Section 101 would extend the renewable energy electricity production tax credit (PTC) for 10 years, to the end of 2018.[60] For certain large facilities, such as geothermal and biomass power plants, recognition of credit eligibility could be extended for up to two years after the placed-in-service deadline.[61] Section 102 would extend the clean renewable energy bonds (CREBs) for 10 years.[62] The national total bond limit would be $1.2 billion per year for 2007 through 2008 and $1.0 billion per year for 2009 through 2018. Section 103 would establish a tax credit bond for water conservation. Section 104 would create a 10% investment tax credit for geothermal exploration. For residential installations of small wind equipment, Section 105 would establish a 30% investment tax credit, with a limit of $1,000 per kilowatt (kw). Section 106 would extend for five years the investment tax credit for the construction of new energy efficient homes.[63] Section 107 would create a 20% investment tax credit for manufacturing equipment used to produce advanced batteries. Section 108 would establish renewable school energy bonds, with a national bond limit of $50 million in 2008, $100 million in 2009, and $150 million in 2010. Under Section 109, bonds would be issued to finance new renewable energy facilities, including equipment that uses tidal, wave, current, and ocean thermal energy. Title II of S. 1531 would permanently extend two tax incentives for solar energy equipment and it would establish three new incentives for solar equipment.[64] Section 201 would extend permanently the 30% value of the investment tax credit for business installations of solar equipment.[65] In Section 202, the investment tax credit for solar (30%) and geothermal (10%) equipment would be made available to

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[59] The extensions are in §101, §102, and §106. The new incentives are in §103, §104, §105, §107, §108,and §109.

[60] The PTC provision of the Tax Relief Act of 2006 (P.L. 109-432, §201) will expire at the end of 2008. The PTC was previously set by the Energy Policy Act (EPACT, §1301).

[61] To qualify under this provision, such plants would have to fulfill two conditions. First, the plant would have to be under construction at the time that the placed-in-service deadline occurs. Second, the plant would have to be operational, producing and selling electricity, within two years after the deadline.

[62] The CREBs provision of the Tax Relief Act (§202) will expire at the end of 2008. CREBs were created by EPACT (§1303).

[63] The new energy efficient new homes credit in the Tax Relief Act (§205) will expire at the end of 2008. The new homes credit was created by EPACT (§1332).

[64] The credit extensions are in §201 and §203. The new incentives are in §202, §204, and §211.

[65] The 30% value of the business solar investment tax credit in the Tax Relief Act (§207) will revert back to 10% at the end of 2008. The 30% value of this credit was established by EPACT (§1337).

public utilities. Under Section 203, the 30% residential energy efficiency investment tax credit would be extended permanently.[66] Further, the cap would be raised to $3,000/kw for solar electric equipment, $2,000 for solar heating and cooling equipment, and $500 for fuel cells. Section 204 would make certain solar equipment eligible for a three-year accelerated depreciation period. Section 211 would establish a 30% investment tax credit for facilities that manufacture solar energy equipment. Brought up on the Senate floor during action on H.R. 6. The bill was read twice and referred to Committee on Finance.

S. 1543 (Bingaman)

National Geothermal Initiative Act of 2007. A goal would be set to obtain 20% of electricity from geothermal energy by 2030. To achieve this, a national geothermal initiative would be established to advance technology development and encourage increased energy production. More than $500 million in funding would be authorized. The U.S. Agency for International Development (AID) would be directed to promote international market development for the use of geothermal resources, including the African Rift Geothermal Development Facility. The U.S. Trade and Development Agency would be required to support that initiative. Introduced June 5, 2007; referred to Committee on Energy and Natural Resources. Hearing held September 26, 2007.

S. 1547 (Levin)/H.R. 1585 (Skelton)

National Defense Authorization Act for Fiscal Year 2008. In both bills, DOD would be allowed to use up to $70 million of its authorized appropriations for energy conservation projects (§ 2402). Under the Senate bill, DOD would also be authorized to enter into multi-year contracts to purchase electricity from renewable energy sources for a period not to exceed 10 years (§ 826). Senate bill introduced June 5, 2007; referred to Committee on Armed Services. Reported (S.Rept. 110-77). Referred to Committee on Intelligence, June 13, 2007. Committee reported (S.Rept. 110-125) June 29, 2007. Under the House bill, DOD facilities would be directed to install energy efficient light fixtures and bulbs (§ 2853). Also, DOD would be required to use renewable energy to meet 25% of its electricity needs by 2025 (§ 2854). House bill introduced March 20, 2007; referred to Committee on Armed Services. Reported (H.Rept. 110-46) May 11, 2007. House passed on May 17, 2007. Senate passed, amended October 1, 2007. Conference reported (H.Rept. 110-477) December 6, 2007. Vetoed by the President December 28, 2007. Bill and veto message referred to House Committee on Armed Services January 15, 2008. See H.R. 4986 for further action.

S. 1548 (Levin)

Department of Defense Authorization Act for Fiscal Year 2008. Section 826 would authorize the Secretary of Defense to enter into contracts for a period not to exceed 10 years for the purchase of electricity from sources of renewable energy. Introduced June 5, 2007; referred to Committee on Armed Services. Reported without written report, June 13, 2007. Referred to Committee on Intelligence, June 13, 2007. Committee reported without written report, June 29, 2007.

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[66] The residential energy efficiency credit in the Tax Relief Act (§206) will expire at the end of 2008. This credit was created by EPACT (§1335).

S. 1554 (Collins)

Energy Independence, Clean Air and Climate Security Act. Title I has several provisions to improve transportation fuel efficiency. Fuel economy standards for cars would be increased to 35 mpg by 2019 and 45 mpg by 2030 (§ 102). An investment credit would be created for manufacturers to produce more energy-efficient vehicles (§ 123). EPA would be directed to develop fuel economy standards for heavy duty vehicles (§ 125). The law that preempts states from establishing fuel economy standards for motor vehicles would be repealed (§ 127). A 30% improvement in the fuel efficiency of federal fleets would be required (§ 128). Title II has some provisions that would promote renewable fuels. Title IV has several provisions aimed at reducing heating and electricity bills. The renewable electricity production tax credit (PTC) would be extended for four years, through the end of 2012 (§ 403). DOE would be directed to establish an energy efficiency resource standard that requires electricity and natural gas suppliers to reduce energy use by 0.25% 2007, rising to 3.0% by 2011. Similarly, a standard would be set to reduce peak demand by 0.25% in 2007, rising to 3.75% by 2011 (§ 404). Electric utilities would be required to meet a renewable portfolio standard (RPS), by obtaining a percentage of their electricity from renewables, starting at1% in 2008 and rising to 20% in 2020 (§ 405). Introduced June 6, 2007; referred to Committee on Finance.

S. 1562 (Biden)

Fluorescent Lightbulb Implementation Program to Save Americans Value and Energy. DOE would be directed to provide grants to States for the distribution of compact fluorescent lights. Introduced June 6, 2007; referred to Committee on Energy and Natural Resources.

S. 1567 (Klobuchar)

A renewable energy portfolio standard (RPS) would be established for the period from 2010 to 2025. DOE would be instructed to establish: (1) a renewable energy credit trading program under which electric utilities shall submit to DOE renewable energy credits to certify their RPS compliance; and (2) a state renewable energy account program for grants to state agencies to promote renewable energy production (including programs that promote technologies that reduce the use of electricity at customer sites such as solar water heating). The Federal Energy Regulatory Commission (FERC) would be directed to issue and enforce regulations to ensure that an electric utility recovers all prudently incurred costs associated with compliance. Also, DOE would be directed to study and report to Congress on methods to increase transmission line capacity for wind energy development. Introduced June 7, 2007; referred to Committee on Energy and Natural Resources.

S. 1600 (Hagel)

An energy innovation information and collaboration network, the "Energy Technologies Innovation Network," would be established. The network would provide a forum for scientists and entrepreneurs from academia, industry, and government labs to collaborate and collect information and ideas about innovative energy technologies. Introduced June 12, 2007; referred to Committee on Energy and Natural Resources.

S. 1601 (Hagel)

Energy Infrastructure Tax Reform and Incentives Act of 2007. The effective tax rate would be lowered for certain investments in energy infrastructure. In particular, incentives would be created for transmission systems, energy management devices, cellulosic ethanol facilities equipment, and ethanol pipelines. Also, the renewable electricity production tax credit (PTC) would be extended for five years, through the end of 2013. The business energy tax credit would be expanded to include green buildings. Introduced June 12, 2007; referred to Committee on Finance.

S. 1602 (Hagel)

Clean, Reliable, Efficient and Secure Energy Act of 2007. Title I on electricity includes a provision that would establish a "clean energy portfolio standard" that would aim to increase total electricity production from renewables and nuclear energy from the current level of about 30% of total electricity to 50% by 2030 (§ 103). The standard for new production would start at 5% in 2012 and rise to 20% by 2030. Title II on transportation includes a provision that would increase automobile fuel economy by 4% annually. Also, the standard for renewable (biodiesel) fuel content in diesel fuel would be set at 250 million gallons in 2008, rising to two billion gallons in 2015 (§ 204). Title III on buildings includes a provision that would authorize $100 million per year over 10 years to capitalize a fund to support green buildings in federal agencies (§ 301). Also, DOE would be directed to establish a grant program to support energy efficiency in public schools (§ 302). Title V would reestablish an Office of Technology Assessment. Introduced June 12, 2007; referred to Committee on Energy and Natural Resources.

S. 1616 (Durbin)/H.R. 3781 (Hill)

Biodiesel Promotion and Quality Assurance Act of 2007. A biodiesel fuel standard would be established, starting at 450 million gallons in 2008, rising to 1.25 billion gallons in 2012 (§ 3). Standards for biodiesel labeling and fuel quality would also be established. Senate bill introduced June 13, 2007; referred to Committee on Environment and Public Works. House bill introduced October 9, 2007; referred to Committee on Energy and Commerce.

S. 1617 (Hatch)

Fuel Reduction using Electrons to End Dependence On the Mid-East (FREEDOM) Act of 2007. To support the market for plug-in hybrid vehicles, this bill would establish an investment tax credit for consumer purchases (§ 2), create a manufacturer incentive focused on expensing of equipment (§ 3), and establish a tax credit for electric utilities that provide consumer rebates for vehicle purchases (§ 4). Introduced June 14, 2007; referred to Committee on Finance. Ordered to be reported August 1, 2007.

S. 1618 (Salazar)

A tax credit of $1.28 per gallon would be established for the production of cellulosic biofuel. Introduced June 14, 2007; referred to Committee on Finance.

S. 1619 (Wyden)

Oil Independence, Limiting Subsidies, and Accelerating Vehicle Efficiency (OILSAVE) Act. A tax credit would be established for fuel-efficient motor vehicles. The size of the credit would be prorated, based on fuel economy. For passenger cars, the credit would start at $630 for 34.5 mpg and rise to $1,660 for 59.5 mpg and

higher. For light trucks, the credit would start at $630 for 27.5 mpg and rise to $1,860 for 59.5 mpg and higher. Introduced June 14, 2007; referred to Committee on Finance.

S. 1637 (Inhofe)/S. 992 (Boxer)

A program would be established to accelerate the use of geothermal heat pumps at facilities of the General Services Administration. Introduced June 15, 2007; referred to Committee on Environment and Public Works.

S. 1656 (Snowe)

Small Business Energy Efficiency Act of 2007. Loans for renewable energy systems and energy efficiency projects would be authorized under the Express Loan Program of the Small Business Administration. Introduced June 19, 2007; referred to Committee on Small Business and Entrepreneurship.

S. 1657 (Kerry)

Small Business Energy Efficiency Act of 2007. The Small Business Administration (SBA) would be directed to create a small business energy efficiency program through the Small Business Development Centers (SBDCs), encourage telecommuting, support innovation, and provide express loans. Introduced June 19, 2007; referred to Committee on Small Business and Entrepreneurship.

S. 1697 (Sununu)/H.R. 3107 (Hodes)

Renewable Energy Tax Parity Act of 2007. A tax credit for residential biomass fuel property expenditures would be established. The equipment must have a thermal efficiency of 75% or higher, and the credit would be capped at $2,000. Senate bill introduced June 26, 2007; referred to Committee on Finance. House bill introduced July 19, 2007; referred to Committee on Ways and Means.

S. 1766 (Bingaman)

Low Carbon Economy Act of 2007. A cap-and-trade program of emission allowances would be created to reduce greenhouse gas (GHG) emissions from the production and use of energy. The program would be similar to the Acid Rain Program. The targets are to reduce U.S. GHG emissions to 2006 levels by 2020 and to 1990 levels by 2030. In place of submitting allowances, the government would allow companies to make a payment at a fixed price. This "Technology Accelerator Payment (TAP)" price would start at $12 per metric ton of CO_2-equivalent in the first year of the program and rise steadily each year thereafter at 5% above inflation. If technology improves rapidly and if additional policies such as a higher fuel economy standard and a renewable portfolio standard are adopted, the TAP option would never be engaged. Conversely, if technology improves less rapidly than expected and program costs exceed projections, companies could make a payment into the "Energy Technology Deployment Fund" at the TAP price, to cover a portion or all of their allowance submission requirement. Section 204 would allocate to states 9% of the total amount of allowances issued each year. The states would be allowed to use those allowances to promote energy efficiency and investment in "non-emitting" electricity generation technology. Section 401 establishes the Energy Technology Deployment Fund (ETDF). It specifies that 45% of the funds would be used to carry out a zero- or low-carbon energy technologies program. This program would include a reverse auction to award incentives for electricity production from certain new generation technologies and for manufacture of certain high-efficiency consumer

products. Seven percent would be used to carry out cellulosic biomass ethanol and municipal solid waste technology deployment programs. Also, 20% of the ETDF funds would be used for an advanced technology vehicles manufacturing incentive program. Renewable energy facilities that receive tradable renewable energy credits under a federal renewable portfolio standard would not be eligible for support under this section. Under Section 410(f), the U.S. Department of State would, starting in 2010, begin to use 20% of the ETDF funds to support an International Technology Deployment Program (ITDP). This program may include loan guarantees, cost shared projects, joint R&D initiatives, and strategies to eliminate financing and market barriers. Introduced July 11, 2007; referred to Committee on Environment and Public Works.

S. 1791 (Klobuchar)

Biodiesel Education and Expansion Act of 2007. The authorization for the Biodiesel Fuel Education and Expansion Program under the Farm Security Act would be extended through 2012 and increased from $1 million per year to $2 million per year. Introduced July 16, 2007; referred to Committee on Agriculture.

S. 1797 (Salazar)H.R. 3072 (Udall)

Colorado Forest Management Improvement Act of 2007. Section 103 of this bill would authorize the Biomass Commercial Utilization Grant Program, allowing the Secretary of Agriculture to provide annual grants to owners or operators of facilities using biomass to offset the costs of purchasing biomass. The Secretary may also exercise authority from this section in conjunction with, or in addition to, any other authority of the Secretary to support or stimulate the use of biomass fuel. Section 301 would extend the tax credit for electricity produced using open-loop biomass to facilities placed in service before January 1, 2030, and to make electricity produced and sold at qualified open-loop biomass facilities eligible for the full credit rate. Senate bill introduced 17, 2007; referred to the Committee on Finance. House bill introduced July 17, 2007; referred to Committees on Natural Resources, Agriculture, Ways and Means, Transportation and Infrastructure, and Science and Technology.

S. 1813 (Coleman)

Individuals would be provided with an opportunity to participate in the financing or ownership of local biorefineries. Introduced July 18, 2007; referred to Committee on Energy and Natural Resources.

S. 1828 (Inhofe)

EPA would be required to study the feasibility of increasing the use of ethanol-blended gasoline. Introduced July 19, 2007; referred to Committee on Environment and Public Works.

S. 2017 (Bingaman)

Energy Efficient Lighting for a Brighter Tomorrow Act of 2007. Sets efficiency standards for general service incandescent lamps, with certain exemptions; requires rulemakings to consider future standards; requires rulemaking on effectiveness of lamp labeling; and requires market assessments and a consumer education program. Introduced September 4, 2007; referred to Committee on Energy and Natural Resources. Hearing held September 12, 2007.

S. 2076 (Reid)

The Federal Power Act would be amended to require the President to designate certain geographical areas as national renewable energy zones. Introduced September 20, 2007; referred to Committee on Energy and Natural Resources.

S. 2079 (Schumer)

The Public Utility Regulatory Policies Act of 1978 would be amended to establish an energy efficiency resource standard for retail electricity and natural gas distributors. Introduced September 20, 2007; referred to Committee on Energy and Natural Resources.

S. 2129 (Dorgan)

Hydrogen Tax Incentives Act of 2007. A tax credit for hydrogen installation and infrastructure costs and for hydrogen fuel costs would be established through December 31, 2010. Introduced October 3, 2007; referred to Committee on Finance.

S. 2155 (Byrd)

The bill would encourage the development of clean energy technologies for deployment in markets abroad, help the Department of Energy (DOE) promote research and development of clean and efficient energy systems, and encourage DOE and other Federal agencies to work together to improve the advancement of sustainable energy use and reduce greenhouse gas emissions. Introduced October 4, 2007; referred to Committee on Foreign Relations.

S. 2191 (Lieberman)

America's Climate Security Act of 2007. The EPA Administrator would be directed to establish a program to decrease emissions of greenhouse gases through establishment of an emissions trading program and other measures. The emissions trading program would tend to encourage the use of "low carbon" equipment such as energy efficiency and renewable energy technologies. Several sections of the bill explicitly encourage or support these technologies: state allocation of energy savings (§3401 and §3501), low carbon technologies (§4402), cellulosic ethanol (§4404), advanced vehicles (§4405), rural energy (§4502), worker training (§4601-§4605), appliance efficiency standards (§5101-§5102), and building efficiency standards (§5201-§5202). Introduced October 18, 2007; referred to Committee on Environment and Public Works. Hearings held November 8, 13, and 15, 2007. Ordered reported December 5, 2007. Reported (S.Rept. 110-337) on May 20, 2008. Superseded by S. 3036.

S. 2202 (Obama)

Renewable Fuel Standard Extension Act of 2007. The renewable content of gasoline would be increased to 8.5 billion gallons in 2008, and then rise step-wise to 18 billion gallons by 2016. Introduced October 18, 2007; referred to Committee on Environment and Public Works.

S. 2242 (Baucus)

Heartland, Habitat, Harvest, and Horticulture Act of 2007. Title III would create renewable energy incentives. Subtitle A on Electricity would establish a tax credit for wind equipment installed on residential and commercial properties (§301), landowner incentives for electricity transmission construction (§302), and exempt renewable energy incentives under Section 9006 of the Farm Security Act of 2002

from causing an offsetting reduction in the renewable energy production tax credit (PTC). Subtitle B on Alcohol Fuel would establish, expand, or extend several tax incentives for alcohol fuel production. Subtitle C would modify certain incentives for biodiesel and renewable diesel fuels. Subtitle D would extend the alternative fuel credit and the alternative fuel vehicle refueling property credit. Introduced October 25, 2007; referred to Committee on Finance. Reported (S.Rept. 110-206) October 25, 2007.

S. 2302 (Harkin)/H.R. 2419 (Peterson)

Food and Energy Security Act of 2007. This bill would establish several provisions for biofuels, biomass, and bioenergy programs, energy efficiency programs, and other renewable energy policies. Committee on Agriculture, Nutrition, and Forestry reported (S.Rept. 110-220) November 2, 2007. Incorporated into H.R. 2419 as an amendment in the nature of a substitute. The Senate passed its version of H.R. 2419 December 14, 2007. For further action, see H.R. 2419. (For more details see CRS Report RL34130, *Renewable Energy Policy in the 2007 Farm Bill*, and CRS Report RL34239, *Biofuels in the 2007 Energy and Farm Bills: A Side-by-Side Comparison.)*

S. 2306 (Dorgan)

Renewable Fuels Strategy Act of 2007. Presents Congressional findings regarding renewable energy resources. Section 32902A would require automobile manufacturers in each model year to ensure that the percentage of flexible fuel vehicles manufactured shall reach at least 50% in 2012 and 80 in 2015. A hardship waiver would allow manufacturers to demonstrate this percentage creates a substantial economic hardship on the manufacturer or vehicle purchasers. Title II would establish a minimum renewable fuels infrastructure assurance, including setting standards for biofuel dispensers; lifting limits on the installation of alternative fuel pumps; creating a program to develop a renewable fuels infrastructure; an infrastructure corridors program for renewable fuels; a biofuels and advanced biofuels infrastructure; and a program to increase consumer awareness of flexible fuel vehicles. Title III would promote government leadership on renewable fuels, including requiring federal agencies to purchase renewable fuels (ethanol blended gasoline and biodiesel); using alternative fuels with the federal government's existing fleet of flexible fuel vehicles; requiring each federal agency to install at least one renewable fuel pump at each federal fleet fueling center in the United States under its jurisdiction by January 1, 2010; and allowing citizen access to federal alternative refueling stations, with various exemptions (National Security, safety to the public), not later than 18 months after the enactment of this act. Nothing in this act preempts or limits the ability of any State to require higher levels of renewable fuel production, distribution, or use. Introduced November 5, 2007; referred to Committee on Energy and Natural Resources.

S. 2307 (Kerry)

Global Change Research Improvement Act of 2007. Section 404 would authorize the Director of the National Institute of Standards and Technology, through the Manufacturing Extension Partnership Program, to develop a program to support the implementation of new "green" manufacturing technologies and techniques by small business manufacturers. Introduced November 5, 2007; referred to Committee on Commerce, Science, and Transportation. Reported (S.Rept. 110-341) with amendments on May 22, 2008.

S. 2314 (Salazar)

Geothermal Heat Pump Development Act of 2007. Sections 2 and 3 would establish an energy credit and a residential energy efficient property credit for geothermal heat pump systems. The maximum credit would be set to $2,000, and attempts to take a double benefit will be denied. Introduced November 6, 2007; referred to Committee on Finance.

S. 2338 (Dodd)

FHA Modernization Act of 2007. Section 113 would amend the Energy Policy Act of 1992 to raise the cap on the price of the cost-effective energy efficiency improvements under the energy efficiency mortgages program to no more than five percent of the property value. Introduced November 13, 2007. Passed Senate with an amendment (93-1) December 14, 2007.

S. 2345 (Baucus)

American Infrastructure Investment and Improvement Act of 2007. Section 205 would include qualified alcohol and biodiesel fuel mixtures in the definition of "taxable fuel," for excise tax purposes. Section 206 would exclude any denaturant added to alcohol from the volume measurements, for purposes of the alcohol fuels tax credit. Reported (S.Rept. 110-228) November 13, 2007.

S. 2349

Overseas Private Investment Corporations Reauthorization Act of 2007. Section 6 would amend the Foreign Assistance Act of 1961 by establishing a Climate Change Mitigation Action Plan. This plan would require the Overseas Private Investment Corporation (OPIC) to institute a climate change mitigation plan within 180 days after the enactment of this act. This plan requires the Corporation to establish goals for substantially increasing its support of and giving preferential treatment to projects that use, develop, or otherwise promote the use of clean energy technologies. Additionally, the Corporation would be required to maintain a goal of reducing direct greenhouse gas emissions associated with projects the Corporation's portfolio by 20% over the 10-year period beginning on the date of enactment. The Corporation would also be required to prepare an annual report to Congress that includes the annual greenhouse gas emissions attributable to each project in its active portfolio; the extent to which the Corporation is meeting the goals of reducing greenhouse gas emissions; and each new project which the Corporation insured, financed, or reinsured that involves renewable energy and environmentally beneficial products and services, including increased energy efficiency. The Corporation would also be required to only approve contracts of insurance, reinsurance, or financing to eligible investors for projects that significantly involve an extractive industry if the investor agrees to implement the Extractive Industries Transparency Initiatives (EITI) principles and criteria and the host country is committed to EITI principles. The bill also provides definitions for "clean technology," "greenhouse gas," and "extractive industry." Introduced November 14, 2007; referred to Committee on Foreign Relations.

S. 2444 (Murray)/H.R. 3637 (Blumenauer)

Higher Education Sustainability Act of 2007. The Department of Education would be directed to make grants to support the establishment of sustainability programs at institutions of higher education. Such programs would be required to develop and implement a number of sustainability practices, including practices in

the areas of energy management and green buildings. Also, the Department would be directed to convene summit of higher education experts on sustainability practices. A report to Congress would be required. Senate bill introduced September 24, 2007; referred to Committee on Education and Labor. House bill introduced September 24, 2007; referred to Committee on Education and Labor.

S. 2483 (Bingaman)

National Forests, Parks, Public Land, and Reclamation Projects Authorization Act of 2007. Section 601 amends section 917 of the Energy Policy Act of 2005 regarding the establishment of Advanced Energy Technology Transfer Centers. The Secretary of Energy shall make grants to non-profit institutions, state and local governments, or institutions of higher education to establish the energy technology transfer centers. Priority will be given to applicants with the capability of transferring knowledge or information about advanced energy efficiency methods and technologies. Each center shall operate an education program to demonstrate and encourage commercial application of advanced energy methods and technologies to individuals and organizations interested in efficient energy use. Grants awarded are for a period of five years, but may be extended up to 11 years after receiving positive program evaluations from the Secretary. Introduced December 13, 2007.

S. 2520 (Johnson)

American Indian tribal governments would be allowed to transfer the renewable electricity production tax credit to a third party. This provision would only apply to electricity produced and sold after December 31, 2006. Introduced December 19, 2007.

S. 2546 (Salazar)

Colorado Forest Management Improvement Act of 2007. Section 103 would amend the Healthy Forests Restoration Act of 2003 to establish a Biomass Commercial Utilization Program. The Secretary of Agriculture would provide grants to owners or operators of facilities that use biomass, on an annual basis, for the following purposes: as a raw material to produce electricity, sensible heat, or transportation fuel; for wood-based products; or other commercial purposes. Grant funds would be used to off-set the costs of purchasing biomass. Priority would be given to operators or owners which purchase biomass removed from land identified for hazardous fuel reduction treatments in a community wildfire protection plan through an authorized hazardous fuel reduction project. Introduced January 23, 2008; referred to Committee on Energy and Natural Resources.

S. 2555 (Boxer)

California and other states would be permitted to control greenhouse gas emissions from motor vehicles. Introduced January 24, 2008; referred to Committee on Environment and Public Works.

S. 2558 (Thune)

The definition of biomass in the Clean Air Act would be revised to include "materials, pre-commercial thinnings, or removed exotic species that ... are harvested from National Forest System land or public lands," in accordance with the Healthy Forests Restoration Act requirements on logging. Introduced January 25, 2008; referred to Committee on Environment and Public Works.

S. 2616 (Bingaman)

National Forests, Parks, Public Land, and Reclamation Projects Authorization Act of 2008. Section 601 would direct the Department of the Interior to make grants to nonprofit institutions, state and local governments, cooperative extension services, or institutions of higher education to establish a geographically dispersed network of Advanced Energy Technology Transfer Centers. The centers would be located in areas determined to have the greatest need. Each center would operate a program to encourage demonstration and commercial applications of advanced energy methods and technologies through education and outreach to building and industrial professionals, and to other individuals and organizations with an interest in efficient energy use. Introduced February 8, 2008; referred to Committee on Finance.

S. 2642 (Klobuchar)

A renewable energy electricity portfolio standard would be created. Also, several renewable energy tax incentives would be extended or created. Introduced February 14, 2008; referred to Committee on Finance.

S. 2730 (Domenici)

Clean Energy Bank Act. The Bank would be designed to operate in a manner similar to that of the U.S. Export-Import Bank and the Overseas Private Investment Corporation — but the focus would be on domestic investment activities to encourage financing to commercialize clean energy projects. The Bank would take responsibility for DOE's loan guarantee program, which is charged with supporting a broad array of fossil, nuclear, renewable, and energy efficiency projects. Introduced March 6, 2008; referred to Committee on Energy and Natural Resources.

S. 2734 (Bond)

Security Against Foreclosures and Education Act (SAFE) Act. The Energy Policy Act of 1992 would be amended to lift the price cap for cost-effective energy efficiency measures under the energy efficiency mortgages program (§323). Introduced on March 7, 2008.

S. 2739 (Bingaman)

Consolidated Natural Resources Act of 2008. Section 601 would amend section 917 of the Energy Policy Act of 2005 regarding the establishment of Advanced Energy Technology Transfer Centers. DOE would be directed to make grants to nonprofit institutions, state and local governments, or institutions of higher education to establish the energy technology transfer centers. Priority would be given to applicants with the capability of transferring knowledge or information about advanced energy efficiency methods and technologies. Each center would operate an education program to demonstrate and encourage commercial application of advanced energy methods and technologies to individuals and organizations interested in efficient energy use. Grants awarded are for a period of five years, but may be extended up to six years, for a total of 11 years, after receiving positive program evaluations from the Secretary. Introduced March 10, 2008. Passed Senate without amendment (91-4) April 10, 2008. House suspended rules and passed bill (291-117) April 29, 2008.

S. 2806 (Feinstein)

The EPA Administrator would be required to reconsider the decision to deny the request of the State of California to regulate greenhouse gas emissions from new

motor vehicles, and to complete further proceedings in accordance with the decision of the Supreme Court in Massachusetts v. Environmental Protection Agency. Introduced April 2, 2008; referred to Committee on Environment and Public Works.

S. 2821 (Cantwell)/H.R. 5984 (Bartlett)

Clean Energy Tax Stimulus Act of 2008. This bill would extend or modify several tax incentives. There are four incentives for renewable energy. The business renewable energy electricity production tax credit (PTC) would be extended for one year, through the end of 2009 (§101). Also, the PTC would be expanded to include marine and hydrokinetic power. Further, in cases when a utility is part owner of the facility, the credit would be allowed to reduce the cost of power sold to utility customers. For business solar and fuel cell property, the 30% investment tax credit (ITC) would be extended for eight years, through the end of 2016 (§102). The 0.5 kilowatt cap for fuel cell property would be removed. Utilities would become eligible to claim the ITC. Also, a 10% credit for microturbines would be extended. For residential solar property, the 30% ITC would be extended for one year, through the end of 2009 (§103). The $2,000 cap for solar electric property would be removed. For non-profit entities, an additional $400 million of clean renewable energy bonds (CREBs) would be authorized for issuance before the end of 2009 (§104). Also, there are four incentives for energy efficiency measures. For homeowners, the 10% ITC for energy efficiency improvements to existing homes would be extended for one year, through the end of 2009 (§201). Pellet stoves would be included as eligible equipment. For contractors and developers of new energy-efficient homes, the ITC would be extended for two years, through the end of 2010 (§202). For commercial buildings, the tax deduction for energy-efficiency improvements would be extended for one year, through the end of 2009 (§203). The maximum deduction would be increased to $2.25 per square foot. For building subsystems, a partial deduction of $0.75 per square foot would be established. For manufacturers, the ITC for energy-efficient appliances (dishwashers, clothes washers, and refrigerators) would be extended for three years, through the end of 2010 (§204). Senate bill introduced April 3, 2008; referred to Committee on Finance. The second degree amendment S.Amdt. 4419 to S.Amdt. 4387 incorporated the text of S. 2821 into Senate version of H.R. 3221. House bill introduced May 7, 2008; referred to Committee on Ways and Means.

S. 2827 (Inhofe)

Section 526 of the Energy Independence and Security Act of 2007 (P.L. 110-140) would be repealed. That section prohibits a federal agency from entering into a contract for procurement of an alternative or synthetic fuel, including a fuel produced from non-conventional petroleum sources, for any mobility-related use (other than for research or testing), unless the contract specifies that the lifecycle greenhouse gas emissions associated with the production and combustion of the fuel supplied under the contract must, on an ongoing basis, be less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources. Introduced on April 7, 2008; referred to the Committee on Energy and Natural Resources.

S. 2886 (Baucus)

Alternative Minimum Tax and Extenders Tax Relief Act of 2008. Title IV would extend or modify several tax incentives. There are four incentives for renewable energy. The business renewable energy electricity production tax credit

(PTC) would be extended for one year, through the end of 2009 (§404). For business solar and fuel cell property, the 30% investment tax credit (ITC) would be extended for one year, through the end of 2009 (§406). Also, a 10% credit for microturbines would be extended for one year. For residential solar property, the 30% ITC would be extended for one year, through the end of 2009 (§402). For non-profit entities, an additional $400 million of clean renewable energy bonds (CREBs) would be authorized for issuance before the end of 2009 (§407). Also, there are four incentives for energy efficiency measures. For homeowners, the 10% ITC for energy efficiency improvements to existing homes would be extended for one year, through the end of 2009 (§403). For contractors and developers of new energy-efficient homes, the ITC would be extended for one year, through the end of 2009 (§405). For commercial buildings, the tax deduction for energy-efficiency improvements would be extended for one year, through the end of 2009 (§408). For manufacturers, the ITC for energy-efficient appliances (dishwashers, clothes washers, and refrigerators) would be extended for two years, through the end of 2009 (§401) Introduced April 17, 2008; referred to Committee on Finance.

S. 2887 (Levin)

National Defense Authorization Act for Fiscal Year 2009. For contracts involving renewable energy, the maximum length of a DOD contract for public utility services would be increased from 10 years to 20 years (§821). Also, DOD military installations would be allowed to accept any financial incentives, assistance, or services from a state or local government to use or construct solar energy and other renewable energy systems (§822). Introduced March 31, 2008; referred to Committee on Finance.

S. 2925 (Schumer)

National Energy Efficiency Development Act. A National Energy Efficiency Development Administration would be established as an independent agency (§5-7). The agency would be empowered to initiate the development of a wide variety of energy efficiency and renewable energy technologies and foster commercial development, with the goal of reducing oil imports (§8). Reports to Congress would be required (§9). About $75 billion would be authorized (§10). Introduced April 28, 2008; referred to Committee on Energy and Natural Resources.

S. 2940 (Brown)

A Green Energy Technology Investment Program would be established to promote green energy production. Introduced April 30, 2008; referred to Committee on Energy and Natural Resources.

S. 2958 (Domenici)

American Energy Production Act of 2008. DOE would be directed to make loans for up to 30% of the cost of adapting a manufacturing facility to produce advanced batteries, with the program capped at $25 million (§202). EPA's Office of Research and Development would be required to establish an R&D program on additives to make biofuels more compatible with infrastructure used to store and deliver petroleum-based fuels to the point of sale (§203). DOE would be directed to conduct a feasibility study for increasing the use of ethanol-blended gasoline with the share of ethanol elevated to a range from 10% to 40% (§204). Introduced May 1, 2008; referred to Committee on Energy and Natural Resources.

S. 2991 (Reid)

Consumer-First Energy Act of 2008. An Energy Independence and Security Trust Fund would be created (§104). Monies of the fund would be made available for programs to reduce the burden of rising energy prices on consumers; diversify and expand the use of secure, efficient and environmentally friendly energy supplies and technologies; reduce greenhouse gas emissions; and prevent energy price gouging, profiteering, and market manipulation. Introduced May 7, 2008.

S. 3025 (Thune)

Flex Fuel for All Americans Act. A tax credit of $1,000 would be created for consumer purchase of a flexible fuel vehicle. Also, a credit of $500 would be established for the purchase "optimum" flexible fuel vehicle. Introduced May 15, 2008; referred to Committee on Finance.

S. 3036 (Boxer)

Lieberman-Warner Climate Security Act of 2008. Introduced as a nearly identical substitute for S. 2191 on May 20, 2008; placed on Senate Calendar for first reading. Cloture motion on the motion to proceed to the measure presented in Senate on May 22, 2008. Debate focused on the potential cost of the bill. Cloture motion approved by vote of 74 to 14 on June 2, 2008. A 30-hour debate on the bill was approved, but amendments were deferred until after the 30-hour debate.

S. 3036 Substitute, Version 1 (Boxer)

Lieberman-Warner Climate Security Act of 2008. This bill is a proposed amendment in the nature of a substitute for S. 3036. Energy efficiency and/or renewable energy provisions appear in eight of the 17 titles in the substitute. Under Title I, Subtitle B, the Environmental Protection Agency (EPA) would use annual appropriations to conduct an early clean technology deployment program that provides grants for energy-efficient buildings (§121), super-efficient equipment and appliances (§122), and clean medium-duty and heavy-duty hybrid fleets (§123). Under Title IV, Subtitle D, a Climate Change Technology Board (CCTB) would be created that uses auction-generated funds to accelerate the commercialization and diffusion of low-carbon and zero-carbon technologies and practices (§442). Under Title V, Subtitle D, EPA would make a portion of revenues from allowance auctions available for an efficiency and renewable energy worker transition training program (§542-546). Under Title V, Subtitle E, EPA would make a share of the emission allowances available for transition assistance to carbon-intensive manufacturers (§551). Under Title V, Subtitle F, EPA would make a share of emission allowances available for transition assistance to owners and operators of fossil fuel-fired electricity generators (§561). Under Title VI, Subtitle A, EPA would distribute a portion of emission allowances to local electricity and natural gas distribution companies in proportion to verified energy savings from consumer energy efficiency programs (§611). Under Title VI, Subtitle B, EPA would use a portion of revenue from allowance auctions to create a Transportation Sector Emission Reduction Fund that makes grants for public transit improvements and travel demand reduction (§621). DOE would be directed to provide incentive funding to states to update state building efficiency codes (§622). EPA would be directed to use a portion of revenues from allowance auctions to fund the energy efficiency and conservation block grant program authorized by P.L. 110-140 (§624). Under Title VIII, Subtitle A, EPA would allocate a portion of allowances to the Climate Change Technology Board which, in turn, would distribute allowances to qualified building owners that conduct

an efficient buildings program (§812). This program would supersede the early action efficient buildings program in §121. Under Title VIII, Subtitle B, the Board would distribute allowances as an incentive to retailers and distributors of super-efficient equipment and appliances (§822). This program would supersede the early action super-efficient equipment program in §122. Under Title VIII, Subtitle C, the Board would distribute allowances as an incentive to owners and operators of manufacturing facilities that achieve high levels of efficiency (§832). Under Title VIII, Subtitle D, the Board would distribute allowances as an incentive to owners, operators, and developers of facilities (including distributed energy and transmission systems) that harness a renewable energy source (§842). Under Title IX, Subtitle A, a share of allowance auction proceeds would be used by the Board to establish a technology fund that provides financial incentives for low-carbon and zero-carbon electricity technology. Incentives would be available to domestic producers of low/zero-carbon generation and domestic facilities and operations of manufacturers of low/zero carbon generation technology (§911-919). Eligible recipients would be identified through a reverse auction process. Under Title IX, Subtitle B, a portion of revenues from allowance auctions would establish a transformation acceleration fund that would be used by DOE's advanced research projects agency (§921-923). Under Title XI, EPA would allocate a portion of allowances to support advanced transportation measures. Under Subtitle A, EPA would distribute allowances as an incentive for the purchase of clean medium-duty and heavy-duty hybrid commercial vehicles into fleet programs (§1113). Under Subtitle B, EPA would deposit a portion of revenues from allowance auctions into a Climate Change Transportation Technology Fund, which would be used to support the Advanced Technology Vehicles Manufacturing Incentive Program established by section 136 of P.L. 110-140. Under Subtitle C, EPA would establish a program to distribute emission allowances to domestic producers of biofuel derived from cellulosic biomass grown in the United States (§1132). Under Subtitle D, EPA would be directed to establish a low carbon fuel standard that requires transportation fuel providers to reduce, on an annual average basis, the average life-cycle greenhouse gas emissions per unit of energy content in transportation fuels (§1143). Under Title XIII, Subtitle C, revenues from allowance auctions would be used to leverage private financing in support of international partnerships to deploy clean technology (§1331-1337). Motion to proceed to debate on S. 3036 deferred all amendments until after a 30-hour debate on the bill. Cloture motion was approved (74-14) on June 2, 2008.

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U.S. Congress. House. Committee on Agriculture. Subcommittee on Conservation, Credit, Energy and Research. *Renewable Energy Financial Structure.* Hearing held March 7, 2007.
[http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_house_hearings&docid=f:36366.pdf]

Committee on Appropriations.

U.S. Congress. House. Committee on Appropriations. Subcommittee on Energy and Water Development. *DOE Energy & Conservation, Fossil Energy, Electricity Delivery and Energy Reliability.* Hearing held March 11, 2008.
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U.S. Congress. House. Committee on Appropriations. Subcommittee on Energy and Water Development. *DOE Energy Supply and Conservation: Fossil Energy/Electricity Delivery and Energy Reliability.* Hearing held March 20, 2007.
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U.S. Congress. House. Committee on Energy and Commerce. Subcommittee on Energy and Air Quality. *Legislative Hearing on Discussion Draft Concerning Alternative Fuels, Infrastructure, and Vehicles*. Hearing held June 7, 2007.
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U.S. Congress. House. Committee on Energy and Commerce. Subcommittee on Energy and Air Quality. *Facilitating the Transition to a Smart Electric Grid.* Hearing held May 3, 2007
[http://energycommerce.house.gov/cmte_mtgs/110-eaq-hrg.050307.Smart.grid.shtml]

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[http://energycommerce.house.gov/cmte_mtgs/110-eaq-hrg.050107.App.efficiency.shtml]

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[http://energycommerce.house.gov/cmte_mtgs/110-eaq-hrg.042407.EPACT.shtml]

U.S. Congress. House. Committee on Energy and Commerce. Subcommittee on Energy and Air Quality. *Alternative Transportation Fuels: An Overview.* Hearing held April 18, 2007.
[http://energycommerce.house.gov/cmte_mtgs/110-eaq-hrg.041807.Alt_fuels.shtml]

U.S. Congress. House. Committee on Energy and Commerce. Subcommittee on Energy and Air Quality; with Committee on Science and Technology, Subcommittee on Energy and Environment. *Climate Change: International Issues, Engaging Developing Countries.* Hearing held March 27, 2007.
[http://energycommerce.house.gov/cmte_mtgs/110-eaq-hrg.032707.developing_countries.shtml]

U.S. Congress. House. Committee on Energy and Commerce. Subcommittee on Energy and Air Quality; with Committee on Science and Technology, Subcommittee on Energy and Environment. *Perspectives on Climate Change: Testimony of Former Vice President Albert Gore, Jr.* Joint Hearing held March 21, 2007.
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[http://globalwarming.house.gov/pubs/pubs?id=0003]

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[http://foreignaffairs.house.gov/110/38604.pdf]

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