

# CRS Issue Brief for Congress

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## Energy Policy: The Continuing Debate

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## Energy Policy: The Continuing Debate

### SUMMARY

Energy prices were high during the winter of 2002-2003, owing to anticipation of the war with Iraq and problems since resolved in Venezuela, a major oil supplier to the United States. Republicans and Democrats alike indicated that a renewal of debate on several energy issues was likely.

On April 30, 2003, the Senate Committee on Energy and Natural Resources completed comprehensive energy legislation (S. 14) that the Senate began debating the week of May 5, 2003. Previously, on April 11, 2003, Chairman Domenici pulled a controversial section on climate change from the bill and indicated it would be addressed later. The Senate bill also does not include language to allow drilling in the Arctic National Wildlife Refuge (ANWR). At present, there are no expressed plans to introduce an ANWR amendment on the Senate floor during the debate. During the week of June 2, 2003, the Senate debated ethanol provisions. On June 5, 2003, the Senate agreed (67-29) to an amendment to establish a renewable fuels standard that would require refiners to blend at least 5 billion gallons annually of ethanol by 2012, a doubling of current U.S. ethanol production. A number of second degree amendments were defeated by significant margins. The House energy bill, H.R. 6, would establish a renewable fuels standard of 2.7 billion gallons by 2005 and 5 billion gallons by 2015.

On April 2, 2003, the Senate Committee on Finance reported S. 597, later superseded by S. 1149. The bill includes roughly \$18 billion in incentives over a 10-year period, of which \$5 billion is targeted to the oil and gas industry, \$2.6 billion to producers of renewable energy sources, \$2.4 billion for alternative fuels and fuel cell vehicles, and \$4 billion for utilities to implement electricity restructur-

ing. This legislation will be debated as an amendment to S. 14.

On April 11, 2003, the House passed its energy bill, H.R. 6 (247-175). The bill includes several provisions that were part of comprehensive, but not enacted, energy legislation (H.R. 4) debated during the 107<sup>th</sup> Congress. These provisions touch upon energy efficiency and conservation, clean coal technology, and reauthorization of the Price-Anderson Act nuclear liability system. The bill passed by the House would also provide roughly \$18 billion in energy tax incentives.

H.R. 6 also addresses controversial issues left unresolved by the 107<sup>th</sup> Congress. The new bill includes an electricity title that would, in part, repeal the Public Utility Holding Company Act, would prospectively repeal the mandatory purchase requirement under the Public Utility Regulatory Policies Act, and would create an electric reliability organization.

The House bill would authorize construction of a natural gas pipeline from the Alaskan North Slope to the lower 48 states, but would allow the Federal Energy Regulatory Commission (FERC) — which must issue a certificate of convenience and necessity for construction of the pipeline — to do so only for a southern route through Alaska, a route to which conferees on H.R. 4 had informally agreed. The bill would also authorize \$1.5 billion for expansion of the Strategic Petroleum Reserve (SPR) to 1 billion barrels and require a study of passenger car fuel economy.

H.R. 6 would also authorize exploration, development, and production of oil in the ANWR, limiting the surface area of “production and support facilities” to 2,000 acres.



## **MOST RECENT DEVELOPMENTS**

On April 30, 2003, the Senate Committee on Energy and Natural Resources completed markup of and ordered reported comprehensive energy legislation (S. 14).<sup>1</sup> On April 11, 2003, Chairman Domenici pulled a controversial section on climate change from the bill and indicated it would be addressed later. The Senate bill also does not include language to allow drilling in the Arctic National Wildlife Refuge (ANWR). Legislation reported from the Senate Committee on Finance (S. 1149) on April 2, 2003 — which would provide more than \$18 billion in tax incentives — will be debated as an amendment to S. 14.

General debate began on the Senate floor during the week of May 5, 2003; however, the debate was intermittent and no votes were taken prior to the Memorial Day recess. Debate resumed on June 2, 2003, with attention first to ethanol provisions of the legislation. On June 5, 2003, the Senate agreed (67-29) to an amendment to establish a renewable fuels standard that would require refiners to blend at least 5 billion gallons annually of ethanol by 2012, a doubling of current U.S. ethanol production. A number of second degree amendments were defeated by significant margins. The House energy bill, H.R. 6, would establish a renewable fuels standard of 2.7 billion gallons by 2005 and 5 billion gallons by 2015. The Senate will next turn to an amendment to drop the provision that would authorize federal loan assistance for nuclear power plant construction.

On April 11, 2003, the House passed comprehensive energy legislation, H.R. 6 (247-175). The bill was a composite of four measures — H.R. 39, reported from the House Committee on Resources, H.R. 238, marked up by the House Science Committee, H.R. 1531, reported from Ways and Means, and H.R. 1644, reported out of the Energy and Commerce Committee. Unlike comprehensive energy legislation (H.R. 4) debated in the 107<sup>th</sup> Congress, H.R. 6 includes a section on electricity which has stirred some controversy. In contrast to the legislation going to the Senate floor, H.R. 6 would provide authorization for exploration and development of the Arctic National Wildlife Refuge (ANWR).

## **BACKGROUND AND ANALYSIS**

Since the Arab oil embargo in 1973-74, policymakers periodically have focused on energy policy. Most of the periods when energy policy has been the object of major legislative initiatives have been when uncertainty about the security of future energy supply has triggered a sharp increase in the price of energy. The current focus on energy policy was triggered by a rise in oil prices that began in the late spring of 1999. Rising prices during the winter of 2002-2003 had many underlying causes, including anticipation of the war with Iraq, and a general strike in Venezuela that began in late 2002 and curtailed as much as 1.5-1.6 million barrels per day of crude and product imports to the United States. Crude oil inventory in the United States fell sharply to make up for the shortfall from Venezuela.

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<sup>1</sup> For technical reasons, the Senate report is issued as accompanying S. 1005. However, the floor debate and any other references by the Senate itself to omnibus energy legislation in the Senate will be to S. 14.

Refined product inventories also fell as a consequence of cold winter weather that has placed particular pressure on heating oil inventories.

Prices softened to roughly \$28 barrel (bbl) amid optimism about the course of the war with Iraq, the resumption of some production from Venezuela in February 2003, and a boost in oil production by Saudi Arabia to make up for tight supply in world markets. With the end of military options in Iraq with minimum damage to Iraqi oil fields, prices fell back to the mid-\$20 range and OPEC – in anticipation of the resumption of oil exports from Iraq – tightened quotas to forestall a glut in oil supply later in 2003. U.S. crude and product stocks have stabilized, but are not significantly being rebuilt. Refiners have shifted over to the production of gasoline to meet summer demand; however, an unexpected decline of more than 3 million barrels in gasoline stocks for the week ended May 23, 2003, startled markets.

Refiners will need to further replenish crude and product inventories while satisfying current demand, and it is not clear how long this may require. Depending upon summer demand in 2003 and temperatures during the winter of 2003-2004, it could take a number of months for crude supply, crude and product inventories, and demand to be restored to some balance.

Prices have softened at the pump from highs observed earlier in 2003, and with the abatement of monthly heating costs as well, there has been less constituent demand for short-term relief. The sorts of policies considered in omnibus energy legislation by the 107<sup>th</sup> Congress — and likely to be debated again in the 108<sup>th</sup> — will be long-term in nature. (For an expanded background discussion about energy policy, see CRS Report RL31720, *Energy Policy: Historical Overview, Conceptual Framework, and Continuing Issues*. For a review of short-term energy policy options to address a supply disruption and high energy prices, see CRS Report RL31676, *Middle East Oil Disruption: Potential Severity and Policy Options*.)

Several energy bills were reported from House committees on April 2, 2003. The House Energy and Commerce Committee reported energy legislation (H.R. 1644) by a vote of 36-17. The House Science Committee marked up legislation (H.R. 238) that would provide \$30 billion for DOE research and development (R&D) programs during fiscal years 2004-2007. The House Committee on Resources reported a bill, H.R. 39 (32-14), that would authorize exploration, development and production of oil in ANWR. On April 3, 2003, the House Ways and Means Committee passed (24-12) H.R. 1531, the Energy Policy Tax Act of 2003. The House bills were merged into H.R. 6, introduced on April 7, 2003, and the House passed H.R. 6, as amended, on April 11, 2003.

The House bill includes several provisions that were part of comprehensive, but not enacted, energy legislation (H.R. 4) debated during the 107<sup>th</sup> Congress. These provisions touch upon energy efficiency and conservation, and clean coal technology. A separate bill in the 107<sup>th</sup> Congress would have reauthorized the Price-Anderson Act nuclear liability system; language to do so has been incorporated into H.R. 6. The bill passed by the House would also provide roughly \$15.5 billion in net energy tax incentives.

H.R. 6 also addresses a number of controversial issues left unresolved by the 107<sup>th</sup> Congress. It includes an electricity title that would, in part, repeal the Public Utility Holding Company Act, would prospectively repeal the mandatory purchase requirement under the Public Utility Regulatory Policies Act, and would create an electric reliability organization.

H.R. 6 would also establish a renewable fuels standard of 2.7 billion gallons by 2005 and 5 billion gallons by 2015.

On April 30, 2003, the Senate Energy and Natural Resources Committee ordered reported its own comprehensive energy legislation (13-10) (S. 14). It includes a narrowly approved electricity section that would, among other provisions, “remand for reconsideration” a controversial proposal from the Federal Energy Regulatory Commission (FERC) called standard market design (SMD), which would provide for the standardization of access and management of electricity transmission lines. The committee rejected a proposed amendment to require light trucks and sport utility vehicles (SUVs) to meet the same corporate average fuel economy standards (CAFE) as passenger automobiles. The Senate bill would also provide federal support for the construction of nuclear power plants and provide loan guarantees for construction of an Alaskan natural gas pipeline. Unlike the House bill, the Senate legislation does not include for a renewable fuels standard and does not include language to open up the Arctic National Wildlife Refuge to leasing. Reported from the Senate Committee on Finance, S. 597, later designated as S. 1149, would provide \$15.5 billion in net energy tax incentives. The Senate will debate the language of S. 1149 as an amendment to S. 14.

General debate began on the Senate floor during the week of May 5, 2003; however, the debate was intermittent and no votes were taken prior to the Memorial Day recess. Debate resumed on June 2, 2003. During the week of June 2, the Senate added a renewable fuels standard to S. 14 that would require refiners to blend at least 5 billion gallons annually of ethanol by 2012, a doubling of current U.S. ethanol production. Votes on June 3, 2003, decisively defeated amendments that would have allowed states to opt in to any renewable fuels program (34-62) and permitted the EPA Administrator to waive the ethanol mandate for states that already meet Clean Air Act standards (34-61). An amendment to exempt states on the East and West Coast and the Rocky Mountains from the ethanol mandate was defeated (69-26) on June 5, 2003. Also defeated was an amendment to drop language referred to as the “safe harbor provision” that extends a product liability waiver to ethanol producers (57-38).

On June 5, 2003, the Senate also agreed by unanimous consent to an amendment to increase the funding authorization for the Low Income Home Energy Assistance Program (LIHEAP) to \$3.4 billion annually through FY2006.

The resolution of the ethanol mandate during the week of June 2, 2003, may enhance the likelihood that the Senate will complete an energy bill despite the limited amount of time cleared for additional debate on S. 14. Negotiations have been ongoing to reconcile differences on other controversial issues prior to these provisions reaching the Senate floor. When debate resumes on June 9, the Senate will be considering an amendment to drop language in S. 14 that would authorize federal assistance for the construction of nuclear power plants.

Some of the major energy issues receiving attention during the 108<sup>th</sup> Congress are discussed briefly below.

**The Arctic National Wildlife Refuge (ANWR).** Domestic oil production continues to fall. Some argue that the nation should be seizing the opportunity to develop the oil and

natural gas resources that remain untapped. The potential Alaskan resources are high on this list, and the debate over whether or not to open ANWR for leasing continues after more than a decade.

On April 2, 2003, the House Committee on Resources reported H.R. 39 (32-14), which would authorize exploration, development and production of oil in ANWR. This language was included in the omnibus energy bill, H.R. 6, passed by the House on April 11, 2003. An amendment was agreed to (226-202) on the floor of the House to limit the surface acreage covered by production and support facilities to 2,000 acres. Opponents of development in ANWR expressed concern that the 2,000 acres would not be contiguous, and would disturb several locals within the Refuge and not just a solitary area.

Language was initially included in both the House and Senate budget resolutions that would promote leasing in ANWR. The Senate budget resolution instructed the Senate Energy and Natural Resources Committee to report legislation that would raise \$2.1 billion in leasing from ANWR, but this language was subsequently dropped. The House budget resolution does not name ANWR, but instructed the House Resources Committee to raise more than \$1.1 billion in revenues during the period 2004-2013.

Proponents of exploring ANWR point to advances in exploration and drilling technology and methods that have significantly reduced the extent of surface disturbance. While opponents concede this may be so, they argue that these advances are limited to exploration and extraction, and that considerable risk to the environment remains during the production and transportation phases. Opponents also suggest that the risks are not worth bearing, especially if the resources in ANWR turn out to be at the lower range of estimates, providing only an additional 300,000 barrels per day (b/d) of supply. Some respond to this argument by noting that the nation has experienced periods of tight supply when even an additional few hundred thousand barrels of crude oil per day would have made for significantly lower prices at the pump, and for home heating oil. It should be noted that there are some environmentalists for whom any weighing of risks and benefits are pointless because, citing the area's pristine character, they argue that its ecology and habitat should not be disturbed under any circumstances.

H.R. 6 was also amended on the floor to include language providing that revenues from bonus bids for leases in ANWR would be available to the Low Income Home Energy Assistance Program (LIHEAP). An amendment to strike the language authorizing leasing and exploration of ANWR was defeated (197-228).

As an historical note, omnibus energy legislation passed by the House during the 107<sup>th</sup> Congress (H.R. 4) would have opened ANWR to oil and gas leasing. However, in the Senate, opponents of opening ANWR filibustered an amendment to include leasing in the Senate version of the bill.

On April 18, 2002, the Senate defeated (54-46) a procedural motion to invoke cloture on the debate. The FY2003 omnibus appropriations bill, P.L. 108-7, did not include any language on ANWR. The comprehensive energy legislation going to the Senate floor does not include language on ANWR. At present, there are no expressed plans to introduce an ANWR amendment on the Senate floor during the debate. (For additional information, see

CRS Issue Brief IB10111, *The Arctic National Wildlife Refuge: Controversies for the 108th Congress.*)

**Other Non-Tax Energy Production Initiatives.** The Department of the Interior has estimated that roughly a quarter of oil resources, and less than one-fifth of gas resources, have been developed on Indian lands. S. 14 includes a controversial provision that would allow Indian tribes to enter into agreements with energy developers without obtaining prior approval from the Department of the Interior. Critics of the proposal argue that this could enable tribes to initiate projects without going through the environmental review required by the National Environmental Policy Act (NEPA).

Alaska currently holds 30 trillion cubic feet of undeveloped proven natural gas reserves, about 18% of total U.S. reserves. Because these reserves are located on Alaska's North Slope, they have not been developed due to the very high cost of building and operating the transportation infrastructure to reach distant markets. There also was debate during the 107<sup>th</sup> Congress over whether construction of a natural gas pipeline to carry gas to the lower 48 states would require loan guarantees and other incentives and over the most desirable route for the pipeline. The energy legislation, H.R. 6, passed by the House on April 11, 2003, would authorize construction of a natural gas pipeline from the Alaskan North Slope to the lower 48 states, but would allow the Federal Energy Regulatory Commission (FERC) — which must issue a certificate of convenience and necessity for construction of the pipeline — to consider only the southern route through Alaska to which conferees on omnibus energy legislation had agreed in the last Congress (H.R. 4). The same language is included in H.R. 6.

**Energy Tax Policy.** Policymakers often explore whether the tax system can be used to help boost declining domestic production of oil and gas, and promote alternatives to traditional fuels. Omnibus energy legislation (H.R. 6) passed in the House on April 11, 2003, would provide about \$18 billion in energy tax incentives. The legislation includes less than \$100 million in general tax increases so that the net energy tax cut is about \$3 billion greater than S. 597, the Energy Tax Incentives Act of 2003, reported from the Senate Finance Committee (SFC) on April 2, 2003 by a vote of 18-2 – and later designated as S. 1149.

The provisions passed by the House in H.R. 6 are substantially scaled down from the House energy tax provisions in H.R. 4, which included about \$33 billion in energy tax cuts over 10 years. The relative weights among the three categories — fossil fuel production, energy efficiency, and alternative/renewable fuels are the same as last year's bills, but the absolute amounts of the cuts are much smaller. The House bill does not include clean coal tax cuts, while the SFC bill retains the clean coal tax provisions that were in S. 1979 (107<sup>th</sup> Congress). The Senate bill would provide a ten year tax cut of just over \$18.0 billion for energy conservation, and for production of oil, gas, and coal. With the exception of two deleted provisions, both relatively minor, and about \$3 billion in corporate revenue increases, S. 1149 is similar to the energy tax incentives legislation (S. 1979) that was brought to the Senate floor in April 2002 and incorporated into the Senate's version of H.R. 4. (For more information see CRS Report RL31828, *The Energy Tax Incentives Act of 2003 (S. 597): Summary of Provisions.*)

The size of the tax cuts in S. 1149, however, is somewhat larger than in S. 1979 (107<sup>th</sup> Cong.), with the additional tax cuts allocated to oil and gas production and refining. The

revenue losses in S. 1149 would be partially offset through additional curbs on corporate tax shelters, limits on corporate and individual expatriates, and an extension of Internal Revenue Service user fees, which would raise about \$3.2 billion over 10 years, so that the net energy tax cut is about \$15.5 billion.

Overall, while both the current Senate and House bills increase the fraction of tax cuts for oil and gas production that would have been provided by previous legislation, H.R. 6 reduces the absolute dollar tax cuts for oil and gas (because the total cuts in H.R. 1531 were much smaller than last year's bill, H.R. 2511), while the SFC bill increases the dollar amounts for oil and gas production (because it is somewhat larger than last year's bill, S. 1979). (For a broader listing of energy tax-related bills, see CRS Issue Brief IB10054, *Energy Tax Policy*.)

**Electricity Restructuring.** Historically, electric utilities have been regarded as natural monopolies requiring regulation at the state and federal levels. The Energy Policy Act of 1992 (EPACT, P.L. 102-486) removed a number of regulatory barriers to electricity generation in an effort to increase supply and introduce competition, but further legislation has been introduced and debated to resolve remaining issues affecting transmission, reliability, and other restructuring concerns.

There were no electricity provisions in the version of omnibus energy legislation (H.R. 4) passed by the House in the 107<sup>th</sup> Congress, and the conferees on H.R. 4 were unable to resolve differences between proposals on electric utility restructuring submitted by staff to the conference committee. On March 13, 2003, Representative Tauzin, chairman of the House Energy and Commerce Committee, insisted to Republican colleagues that they support inclusion of an electricity section in any comprehensive legislation the committee reported. Tauzin expressed his opinion that the absence of a House position on electricity in the House version of H.R. 4 in the previous Congress had hobbled the work of the conferees and contributed to their inability to finish a bill before the 107<sup>th</sup> Congress adjourned.

H.R. 6, the omnibus energy legislation passed by the House on April 11, 2003, does include a section on electricity. Title VI of H.R. 6 would, in part, provide for incentive-based transmission rates, allow transmission owners in certain instances to exercise the right of eminent domain to site new transmission lines, allow transmission owners that do not belong to a regional transmission organization to preferentially serve native load customers, create an electric reliability organization, and give new, but limited authority to the Federal Energy Regulatory Commission (FERC) over municipal and cooperative transmission systems. In addition, H.R. 6 would repeal Public Utility Holding Company Act (PUHCA) and give FERC and state public utility commissions access to books and records, prospectively repeal the mandatory purchase requirement of the Public Utility Regulatory Policies Act of 1978 (PURPA), and require utilities to provide real-time rates and time-of-use metering. H.R. 6 would establish market transparency rules, explicitly prohibit round-trip trading, and significantly increase criminal penalties under the Federal Power Act.

The energy bill on the Senate floor includes a narrowly approved electricity title. The proposal would "remand for reconsideration" a controversial proposal from the Federal Energy Regulatory Commission (FERC) called standard market design (SMD), which would provide for the standardization of access and management of electricity transmission lines.

The Senate bill would prohibit FERC from issuing a new proposal before July 1, 2005. It would repeal PUHCA and express the sense of Congress that participation in regional transmission organizations (RTOs) should be voluntary for utilities. FERC would be granted limited authority over utilities that have been generally exempt from FERC oversight; these include rural co-ops and municipalities. The intention is to ensure that competing power suppliers could have access to their transmission lines at comparable rates and service levels. A number of amendments are expected. (For additional information, see CRS Issue Brief IB10006, *Electricity: The Road to Restructuring*, or see the CRS Electronic Briefing Book: Electric Utility Restructuring [<http://www.congress.gov/brbk/html/ebe1.shtml>].)

**Nuclear Energy.** Reauthorization of the Price-Anderson Act nuclear liability system is one of the top nuclear items on the energy agenda. Omnibus energy legislation (H.R. 6) passed by the House on April 11, 2003, would reauthorize the Price-Anderson Act through August 1, 2017. The energy bill approved by the Senate Committee on Energy and Natural Resources, S. 14, would extend the Act indefinitely. Under Price-Anderson, commercial reactor accident damages are paid through a combination of private-sector insurance and a nuclear industry self-insurance system. Liability is capped at the maximum coverage available under the system, currently about \$9.6 billion. Price-Anderson also authorizes the Department of Energy (DOE) to indemnify its nuclear contractors. The nuclear industry contends that the system has worked well and should be continued, but opponents charge that Price-Anderson's liability limits provide an unwarranted subsidy to nuclear power. H.R. 6 would also require the Nuclear Regulatory Commission (NRC) to issue new regulations on nuclear power plant security and to conduct force-on-force security exercises. The proposed nuclear liability and security provisions are nearly identical to a Price-Anderson extension bill passed by the House in the 107th Congress (H.R. 2983).

H.R. 6 would authorize appropriations for DOE research on nuclear technology, including advanced reactors, spent fuel treatment and reprocessing, improved operation of existing reactors, and university nuclear science and engineering. DOE's spent fuel treatment and reprocessing research is particularly controversial. Supporters contend that reprocessing could provide additional energy and reduce nuclear waste hazards, but opponents counter that plutonium extracted from spent fuel during reprocessing could be used for weapons. (For details, see CRS Issue Brief IB88090, Nuclear Energy Policy.)

S. 14 would authorize federal loan guarantees and power purchase agreements to aid construction of six or seven reactors that would add up to 8,400 megawatts to the current nuclear generation capacity of 98,000 megawatts. When the Senate resumes debate on S. 14 the week of June 9, 2003, an amendment will be on the floor to strike the federal nuclear assistance from the bill. (For more details, see CRS Report RS21536, *Potential Cost of Nuclear Power Plant Construction Assistance in S. 14*.)

The Senate bill would also authorize \$1.3 billion for the construction of a nuclear-hydrogen cogeneration project at the Idaho National Engineering and Environmental Laboratory. The purpose would be to explore production of hydrogen fuel from nuclear energy. Currently, natural gas is the main source for hydrogen fuel.

**Fuel Economy.** Energy problems can be addressed on both the supply and demand side; at issue since the Arab oil embargo in the mid-1970s is what balance should be struck

between policies affecting supply and demand. One of the first initiatives designed to have a significant effect on supply was passage of corporate average fuel economy standards (CAFE) in the Energy Policy and Conservation Act of 1975 (EPCA, P.L. 94-163). In the years since, there have been periodic calls for stiffening or broadening the CAFE standards — especially as consumer demand has turned more to light-duty trucks and sport utility vehicles (SUVs).

The 107<sup>th</sup> Congress lifted a prohibition on expenditure of appropriated funds by the National Highway Traffic Safety Administration (NHTSA) to undertake CAFE rulemakings. Subsequently, on April 1, 2003, NHTSA issued a final rule to boost the CAFE of light-duty trucks by 1.5 mpg by 2007. The rule sets the interim standards at 21.0 mpg for model year (MY)2005, 21.6 mpg for MY2006, and 22.2 for MY2007, and is the first increase in CAFE since MY1996.

This rulemaking has not quelled interest in CAFE. H.R. 6, the omnibus energy bill passed in the House on April 11, 2003, would authorize appropriations to NHTSA to conduct rulemakings, and would require a study on the feasibility and effects of reducing fuel use by automobiles. During markup in the House Committee on Energy and Commerce, an amendment by Representative Markey to require reductions of 5% in automotive fuel usage by 2010 and an additional 5% by 2015 was defeated (14-38). An amendment offered on the floor of the House to include only the 5% savings by 2010 was defeated (162-268) as well.

Currently, light truck fuel economy standards do not apply to vehicles above 8,500 pounds gross vehicle weight (GVW). Senator Feinstein has introduced legislation (S. 225) that, among other provisions, would expand the applicability of fuel economy standards to vehicles up to 10,000 pounds GVW. In the Senate Energy and Natural Resources Committee, an amendment to require light trucks and sport utility vehicles (SUVs) to achieve a CAFE of 27.5 mpg by MY2011 was defeated (15-7). Though Senator Domenici is reported to be trying to discourage the effort, Senator Feinstein has indicated that she will propose the same amendment on the Senate floor during debate on S. 14. (For additional information, see CRS Issue Brief IB90122, *Automobile and Light Truck Fuel Economy: The Cafe Standards.*)

**The President's Hydrogen Fuel Initiative.** In his State of the Union Address on January 28, 2003, President Bush announced a new \$720 million research and development (R&D) initiative for hydrogen as a transportation fuel. This program, the Hydrogen Fuel Initiative, is intended to complement the FreedomCAR initiative, which focuses on cooperative vehicle research between the federal government, universities, and private industry. While these two partnerships have different goals, they do share in common the goal of producing by 2010 hydrogen-fueled engine systems that achieve double to triple the efficiency of today's conventional engines at a cost competitive with conventional engines. The Administration's FY2004 budget request would increase overall funding for research into hydrogen fuel, fuel cells, and vehicle technologies by about 30%. Some of this increase would be offset by funding reductions in other programs, but the majority will be new funding. H.R. 6 includes language that would authorize the President's requested level of funding for the program in FY2004; the President's request was for an additional \$720 million over a period of five years from levels authorized for FY2003. An amendment in the House Science Committee to boost the funding level even more was defeated. As reported, S. 14 proposes \$3.0 billion for hydrogen and fuel cell research. Senator Dorgan intends to

introduce an amendment on the Senate floor to boost hydrogen research to \$6.5 billion over 10 years.

Critics of the Administration suggest that the hydrogen program is intended to forestall any attempts to significantly raise vehicle CAFE standards, and that it relieves the automotive industry of assuming more initiative in pursuing technological innovations. On the other hand, some will argue that it is appropriate for government to become involved in the development of technologies that are too costly to draw private sector investment. At issue for these policymakers will be whether or not the federal initiative and level of funding is aggressive enough. (For additional information, see CRS Report RS21442, *Hydrogen and Fuel Cell R&D: FreedomCAR and the President's Hydrogen Fuel Initiative*.)

**Renewable Energy and Fuels.** One of the most controversial provisions of the energy legislation debated during the 107<sup>th</sup> Congress was the establishment of a renewable fuel standard (RFS) intended to increase the use of ethanol. Toward that end, the legislation also proposed the elimination of methyl tertiary butyl ether (MTBE). The provision was supported by the oil industry, ethanol producers, and environmental groups. However, critics argued that it would boost prices to consumers and create shortages.

H.R. 6 includes a renewable fuel standard (RFS) that would require the blending of 2.7 billion gallons of renewable fuel with gasoline in 2005. Most of this would be met with ethanol, but other renewable fuels, including biodiesel, would qualify. The required volume would rise to 5 billion barrels annually by 2015.

As placed on the Senate calendar, S. 14 did not include an RFS. However, on June 5, 2003, the Senate agreed (67-29) to an amendment to establish a renewable fuels standard that would require refiners to blend at least 5 billion gallons annually of ethanol by 2012, a doubling of current U.S. ethanol production. A number of second-degree amendments were defeated by significant margins. Votes on June 3, 2003, decisively defeated second-degree amendments that would have allowed states to opt in to any renewable fuels program (34-62) and permitted the EPA Administrator to waive the ethanol mandate for states that already meet Clean Air Act standards (34-61). An amendment to exempt states on the East and West Coast and the Rocky Mountains from the ethanol mandate was defeated (69-26) on June 5, 2003. Also defeated was an amendment to drop language referred to as the "safe harbor provision" that extends a product liability waiver to ethanol producers (57-38). The Senate accepted an amendment to broaden the ethanol program to include agricultural residues and waste products as feedstocks for ethanol production.

S. 14 would also ban MTBE in 4 years. H.R. 6 would eliminate the current 2% oxygenate mandate for reformulated gasoline, but would not ban MTBE outright. As passed, and like S. 14, H.R. 6 includes the controversial "safe harbor" provision that would exempt producers from liability for damages resulting from the use of renewables or MTBE, such as contamination of water supply. The House version of H.R. 4 passed by the House in the 107<sup>th</sup> Congress had included all renewables in its waiver; the Senate version in the 107<sup>th</sup> Congress included ethanol but did not include any of the ethers such as MTBE. Those opposed to an outright ban of MTBE argue that marketers should be allowed to choose to use ethanol in markets that are closest to storage and blending facilities, and that the key problem is not MTBE, but inadequate underground storage tanks that leak.

H.R. 6 includes incentives for power generated by renewable energy sources. The existing renewable energy production tax credit provides a 1.8 cents/kwh credit for businesses that generate power from wind, closed-loop biomass (energy crops), and poultry waste for sale to the grid. P.L. 107-147 extended this credit through Dec. 31, 2003. Both H.R. 6 and S. 1149, the Senate's energy tax bill reported from the Senate Finance Committee on April 2, 2003, would extend the credit for three years, through Dec. 31, 2006. The bills would also expand the eligible sources to include open-loop biomass (forest, agricultural, and construction wastes). H.R. 6 would further extend the credit to landfill gas and trash combustion facilities. S. 1149 does not include landfill gas and trash facilities, but would expand credit eligibility to swine and bovine waste, geothermal energy, solar energy, small irrigation power facilities, municipal biosolids, and recycled sludge. Further, S. 1149 sets conditions under which the credit could be transferable.

Parallel to the production tax credit, there is a renewable energy production "incentive" (REPI) for state and local governments. This 1.5 cent/kwh incentive was created by Energy Policy Act of 1992 and is funded through appropriations to the Department of Energy. H.R. 6 and the draft Senate bill have identical provisions that would extend this incentive through 2023 and add landfill gas to the list of eligible resources. (For additional information, please see CRS Issue Brief IB10041, *Renewable Energy: Tax Credit, Budget and Electricity Production Issues.*)

**Energy Efficiency and Conservation.** H.R. 6 and the draft Senate bill have identical provisions that direct DOE to set efficiency standards within three years for "standby mode" energy use by battery chargers and external power supplies. The two bills also have identical provisions that call for standards to be developed for suspended ceiling fans, vending machines, unit heaters, commercial refrigerators, freezers, refrigerator-freezers, illuminated exit signs, torchieres, distribution transformers, and traffic signal modules. The draft Senate bill differs by including medium base compact fluorescent lamps (CFLs) and commercial clothes washers. Many of the above items were approved by the conference committee on H.R. 4 in the 107<sup>th</sup> Congress.

H.R. 6 and the draft Senate bill set goals for further energy efficiency in federal buildings. The baseline years differ slightly: The House bill specifies FY2001 while the Senate bill specifies FY2000. Otherwise the provisions are nearly identical, with both setting progressive annual reductions that end with a 20% reduction from baseline by FY2014. However, the Senate bill also calls for DOE to review results by the end of 2011 and recommend further goals for building energy savings for the period 2014 through 2022.

Since the late 1970s, there have been some tax incentives to promote fuel switching and alternative fuels as a way to conserve gasoline and reduce oil import dependence. In contrast, tax incentives for energy efficiency and for electricity conservation have been rare, and generally short-lived. H.R. 6 and S. 1149 propose some modest new tax incentives for energy efficiency. Most of the provisions in the tax titles of the two bills are similar. They cover fuel cell power plants, new homes, existing homes, and combined heat and power (CHP). Also, both bills have tax incentives for alternative fuel vehicles and equipment. S. 1149 also has provisions to provide a tax credit for manufacturers of certain appliances that exceed federal standards, and would create a tax deduction for efficient commercial buildings. (For additional information, see CRS Issue Brief IB10020, *Budget, Oil Conservation and Electricity Conservation Issues.*)

## LEGISLATION

### **H.R. 6 (Tauzin)**

To enhance energy conservation and research and development, to provide for security and diversity in the energy supply for the American people, and for other purposes. Incorporates H.R. 39, H.R. 238, H.R. 1531, and H.R. 1644. Introduced April 7, 2003; referred to several committees. Passed by the House, April 11, 2003.

### **H.R. 39 (Young)**

Arctic Coastal Plain Domestic Energy Security Act of 2001. Declares that it is the policy of the United States to permit exploration, development, production, and transportation of oil and gas resources in a designated area of the Coastal Plain Study Area of the Arctic National Wildlife Refuge. Introduced January 3, 2003; referred to Committee on Resources. Reported from the Committee on Resources April 2, 2003.

### **H.R. 238 (Boehlert)**

Energy Research, Development, Demonstration and Commercial Application Act of 2003. Authorizes programs in energy efficiency, distributed energy and electric energy systems, renewable energy, fossil energy, and nuclear energy. Introduced January 8, 2003; referred to Committee on Science and Committee on Resources' Subcommittee on Energy and Mineral Resources.

### **H.R. 1531 (McCrery)**

Energy Tax Policy Act of 2003. To amend the Internal Revenue Code of 1986 to enhance energy conservation and to provide for reliability and diversity in the energy supply for the American people, and for other purposes. Introduced April 1, 2003; referred to Committee on Ways and Means. Ordered to be reported (24-12) April 3, 2003, H.Rept. 108-67.

### **H.R. 1644 (Barton)**

Energy Policy Act of 2003. To enhance energy conservation and research and development, to provide for security and diversity in the energy supply for the American people, and for other purposes. Introduced April 7, 2003. Reported from Committee, H.Rept. 108-65.

### **S. 14 (Domenici)**

A bill to enhance the energy security of the United States, and for other purposes. Introduced April 30, 2003; reported May 6, S.Rept. 108-43. For technical reasons, the Senate report reads to accompany S. 1005; however, the debate will refer only to S. 14.

### **S. 225 (Feinstein)**

Amends title 49, United States Code, to require phased increases in the fuel efficiency standards applicable to light trucks; to require fuel economy standards for automobiles up to 10,000 pounds gross vehicle weight; to increase the fuel economy of the Federal fleet of vehicles, and for other purposes. Introduced January 30, 2003; referred to Committee on Commerce, Science, and Transportation.

**S. 385 (Daschle)**

Amends the Clean Air Act to eliminate methyl tertiary butyl ether (MTBE) from the United States fuel supply, to increase production and use of renewable fuel, and for other purposes. Introduced February 13, 2003; referred to Committee on Environment and Public Works.

**S. 421 (Cantwell), H.R. 671 (Bono)**

Reauthorizes and revises the Renewable Energy Production Incentive program, and for other purposes. House bill introduced February 11, 2003; referred to Committee on Energy and Commerce. Senate bill introduced February 14, 2003; referred to Committee on Energy and Natural Resources.

**S. 424 (Bingaman)**

Tribal Energy Self-Sufficiency Act. To establish, reauthorize and improve energy programs relating to Indian tribes. Introduced February 14, 2003; referred to Committee on Indian Affairs.

**S. 1149 (Grassley)**

Energy Tax Incentives Act of 2003. Provides a number of tax credits and incentives to increase the production of oil and gas, and institute or extend tax credits to promote biomass, biodiesel and wind energy. Reported from the Committee on Finance April 2, 2003 (S.Rept. 108-54). When first considered by the committee, the bill was S. 597.