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Energy Policy: Comprehensive Energy Legislation (H.R. 6, S. 10) in the 109th Congress

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Robert L. Bamberger
Resources, Science, and Industry Division

Carl E. Behrens
Resources, Science, and Industry Division

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SUMMARY

The Senate took up the Energy Policy Act of 2005, H.R. 6, beginning June 14. Its first action was to substitute the text of S. 10 (S.Rept. 109-78), which was ordered reported by the Committee on Energy and Natural Resources May 26. The Senate bill is similar to the House-passed version, but major differences exist, including the following areas.

Ethanol and MTBE. The House bill includes a "safe harbor" provision to protect methyl tertiary-butyl ether (MTBE) refiners from product liability suits, while the Senate bill does not. Both bills would repeal the Clean Air Act requirement for oxegenated gasoline that led to the use of MTBE, and both would require refiners to use biofuel (presumably mostly ethanol), but the House bill sets a goal of 5 billion gallons per year by 2012 and the Senate bill would require 8 billion gallons.

ANWR. Leasing of part of the Arctic National Wildlife Refuge (ANWR) for oil and gas development would be permitted by a provision in the House bill, but not in the Senate bill. However, on April 28 the House and Senate approved a final budget resolution implicitly calling for ANWR to be opened to provide oil and gas leasing revenue.

Electricity Restructuring. Both the House and the Senate bills would repeal the Public Utility Holding Company Act (PUHCA), but the Senate bill has provisions for more stringent oversight of utility mergers than the House version.

Renewable Energy. On June 16 the Senate adopted a "renewable portfolio standard" (RPS) requiring utilities to generate at least 10% of their electricity from renewable energy sources by 2020. The provision was rejected by the House in passing its version of H.R. 6.

Fuel Economy. The Senate bill contains a provision not in the House-passed version, directing the President to take measures to reduce total demand for petroleum by one million barrels per day (mbd) by 2015.

Tax Provisions. The Administration's FY2006 budget request calls for a limit of $6.7 billion in energy tax credits. The tax incentive provisions of the House-passed H.R. 6 have an estimated cost of $8.1 billion. The Senate tax provisions, as revealed by the Joint Committee on Taxation, include more incentives for conservation and renewables than the House bill. The tax provisions, approved by the Senate Finance Committee June 16, will be offered as an amendment to H.R. 6 on the floor.

Outer Continental Shelf. An amendment in the Senate committee to permit states to opt out of federal moratoria on new offshore drilling was withdrawn. However, a provision to require an inventory of oil and natural gas resources on the Outer Continental Shelf (OCS) was adopted in the Senate bill. The House-passed H.R. 6 also makes no changes to the moratoria, but does not call for a resource study.

Siting of LNG Terminals. Provisions to permit the Federal Energy Regulatory Commission (FERC) to decide on the siting of liquefied natural gas terminals are opposed by some policymakers as an override of states' rights. An amendment to eliminate these provisions from the House version of H.R. 6 had insufficient support (194-237). The provisions in the Senate bill are milder.

MOST RECENT DEVELOPMENTS

The Senate took up H.R. 6, the Energy Policy Act of 2005, on June 14, its first action being to adopt as a substitute the text of S. 10 (S.Rept. 109-78), which the Committee on Energy and Natural Resources ordered reported May 26. The House passed its version of H.R. 6 on April 21 by a vote of 249-183. On June 16, the Senate adopted an amendment by Senator Bingaman requiring utilities to generate at least 10% of their electricity from renewable energy sources by 2020. An amendment by Senator Cantwell, which would have set the goal of reducing petroleum imports by 40% by 2025, was defeated on the floor by a vote of 47-53.

Information on the energy tax provisions being marked up by the Senate Finance Committee became available on June 14. For details on the $14.1 billion, 11-year tax title, see CRS Issue Brief IB10054, *Energy Tax Policy,* by Salvatore Lazzari.

BACKGROUND AND ANALYSIS

(Note: The House has designated the Energy Policy Act of 2005 in the 109th Congress as H.R. 6, the same number as the energy bill considered in the 108th Congress. References in the introduction and elsewhere to H.R. 6 in the 108th Congress are designated by [108] following the bill number. The Senate is also considering its version of the energy bill as H.R. 6.)

Since the time of the Arab oil embargo in 1973-1974, the United States and other major energy consumers have achieved greater efficiencies in energy use in all sectors of the economy.[1] However, national and world energy demand continues to grow, and domestic oil production in the United States continues to decline as the more accessible resources of crude from U.S. fields in Alaska and elsewhere have been tapped. As a consequence, the gap between U.S. production and consumption has had to be covered by increased oil imports. These imports, roughly 6 million barrels per day (mbd) daily after the Arab oil embargo, now exceed 10 million mbd to satisfy U.S. oil consumption of nearly 21 mbd.[2]

As with any commodity, the price of crude oil and petroleum-based products can be volatile. In the last few years, a number of factors have contributed to sharp increases in the price of oil. Demand for petroleum by developing nations and the Far East had put pressure on current world production and refining capacity. Attacks upon Iraqi pipelines supplying oil to world markets, and a general uncertainty about stability in the Middle East, have also contributed to nervousness in world oil markets. Inventories of crude and some petroleum product inventories were already below year-earlier levels, and were continuing to decline or hold steady, raising the specter of home heating oil shortages if winter 2004-2005 proved

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[1] For a more thorough review of energy policy since the mid-1970s and a broader framework for the current debate, see CRS Report RL31720, *Energy Policy: Historical Overview, Conceptual Framework, and Continuing Issues*.

[2] U.S. Department of Energy, Energy Information Administration, at [http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/current/pdf/tableh1.pdf].

to be a cold one. A major factor contributing to high prices was Hurricane Ivan, which rampaged through the Gulf Coast in mid-September, and temporarily shut down more than 70% of U.S. offshore crude production, affecting crude oil deliveries to refineries. Inventory levels of crude oil and petroleum products declined.

Some of the decline in domestic production has been partially offset by growing production from "deep water" fields in the Gulf of Mexico that now exceeds 900,000 barrels daily, or roughly 60% of all production from the Gulf. Deep water production is projected to reach 2.25 million barrels daily by 2010. The Minerals Management Service of the Department of the Interior has estimated potential deep water reserves of 56 billion barrels.[3]

By mid-March 2005, crude prices exceeded $50/barrel and, for the most part, have remained at that level or higher into the latter part of April. Prices have not met or exceeded in real terms historic highs for oil prices. While energy policy touches on many problems other than fossil fuel supply and demand, the price of oil — gasoline and home heating oil in particular — is often the lever that spurs policymakers to discuss national energy policy and to seek legislative initiatives to increase the supply of conventional fuels, promote the development and use of alternative and renewable fuels, push for improvements in efficiency of energy consumption, assure greater reliability in the electric utility sector, and review existing and possible new incentives in the tax system to promote change in how the nation uses energy. Not surprisingly, national energy policy received significant attention during the 108th Congress.

Comprehensive energy legislation was reported from conference in the 108th Congress in November 2003 and approved by the House shortly thereafter, but was not approved by the Senate. Discussion of breaking out less controversial provisions was resisted by the House and Senate leadership. They argued that the bill that had been crafted was a careful balance of competing visions; breakup would leave more controversial provisions without leverage for compromise. The main exception was that some energy tax incentives were extended or adopted in the Working Families Tax Relief Act of 2004 (P.L. 108-311) and the American Jobs Creation Act of 2004 (P.L. 108-357).

Major concerns in the Senate were the cost of H.R. 6 [108] — estimated at around $31 billion over 10 years — and a provision insisted upon by the House that would have protected producers of methyl tertiary-butyl ether (MTBE) and renewable fuels from liability for personal injury, property damage, and cleanup. Early in the second session of the 108th Congress, a comprehensive bill (S. 2095) with a cost of roughly $14 billion was introduced in the Senate, but did not reach the floor. Another controversial issue has been establishment of a renewable portfolio standard (RPS) that would require utilities to use more renewable fuel sources to generate electricity. Language to open up the Arctic National Wildlife Refuge (ANWR) to oil and gas development was not included in H.R. 6 [108].

Similar language is in the Energy Policy Act of 2005, passed by the House on April 21, 2005. At his confirmation hearing on January 19, 2005, before the Senate Committee on Energy and Natural Resources, Energy Secretary Samuel Bodman indicated that he would press for passage of an energy bill that would include provisions to open ANWR to leasing

[3] [http://www.gomr.mms.gov/homepg/offshore/deepwtr.html].

and development. The FY2006 budget transmitted to Congress by the Bush Administration supports opening ANWR to exploration and development. The budget projects bonus bid revenues at $2.4 billion, half of which would accrue to the federal government and the balance to Alaska. On March 9, 2005, the Senate Budget Committee issued a budget resolution that assumes $2.5 billion of revenue over five years from leases in ANWR, and would allocate $2.0 billion in mandatory spending to comprehensive energy legislation and $4.5 billion for energy tax incentives. On March 16 the Senate rejected an amendment by Senator Cantwell to strike the ANWR provisions, by a vote of 49-51. The next day the Senate passed the budget resolution (S.Con.Res. 18). The House version of the budget resolution (H.Con.Res. 95) passed on March 17 did not include ANWR provisions, but they are a part of the Energy Policy Act of 2005 passed by the House on April 21, 2005. On April 28, the House and Senate approved a final budget resolution with reconciliation instructions requiring that the Senate Committee on Energy and Natural Resources and House Committee on Resources find $2.4 billion in savings through FY2010, implicitly calling for authorization of exploration and development in ANWR.

Little in the conference version of H.R. 6 [108] would have addressed price and supply issues in the near term — largely because there are very few policy options to address price volatility. Many policymakers have characterized the Energy Policy Act of 2005 passed by the House on April 21, 2005, similarly. In public remarks during the latter part of April 2005, the President acknowledged that the bill would not affect energy prices in the near-term.

However, to the extent that production and refining capacity exists, high prices can encourage additional supply. The Low Income Home Energy Assistance Program (LIHEAP) can provide financial support to households overwhelmed by high prices. In the event of a price increase caused by a shortfall in physical supply of crude or home heating oil, the Strategic Petroleum Reserve (SPR) and the Northeast Heating Oil Reserve (NHOR) might be tapped.

It is difficult to achieve widespread consensus on national energy policy. Constructing a balanced energy policy that will not undermine other competing and equally legitimate policy goals is a complex undertaking. There is controversy about the impacts of energy development on the environment, and policymakers have different positions about the extent to which tradeoffs should be risked. Because of the regional diversity of the United States, some policy options are not perceived to serve all regions of the nation advantageously. These considerations help to explain why the time-consuming crafting of a comprehensive bill in the 108th Congress was perceived to represent a fragile balance between competing interests.

The fashioning of comprehensive energy legislation is also made more difficult by the very price volatility that renews interest in national energy policy. A review of the course of energy prices since the time of the Arab oil embargo and first oil price shock in 1973 reveals that it is a more proximate characterization to see this 30-year period as one of general price and supply stability that is periodically broken by shorter episodes of supply disruption and price volatility. It is not so much that energy policy has failed to be responsive to crises; rather, during lengthy periods of stability and declining prices for conventional fuels, it has proven difficult to sustain certain policy courses that might help shield the nation from the occasional episodes of instability.

109th Congress. On April 13, 2005, several House committees finished markup of their respective portions of comprehensive energy legislation — the House Committee on Energy and Commerce, the Committee on Resources, and the Committee on Ways and Means. For the most part, attempts by the minority to significantly amend the language of the committee bills were unsuccessful. Debate on the Energy Policy Act of 2005 (H.R. 6) began April 20, 2005, and the legislation was passed (249-183) the following day. Some of the major features of H.R. 6 are discussed below. Overall, the Energy Policy Act of 2005 as passed by the House and the comprehensive legislation reported from conference in the 108th Congress, but not enacted, are very similar. Important differences are the ANWR language, fewer energy tax incentives, and inclusion of a refinery revitalization program that was passed by the House (H.R. 4517) during the 108th Congress, but not by the Senate.

One of the major issues has been the cost of legislation providing energy tax credits. The bill that went to conference in the 108th Congress (but was not enacted) included more than $30 billion in tax credits. Some energy tax incentives were subsequently extended or adopted in the Working Families Tax Relief Act of 2004 (P.L. 108-311) and the American Jobs Creation Act of 2004 (P.L. 108-357). The Administration's FY2006 budget request calls for a limit of $6.7 billion in energy tax credits. The estimated cost of the provisions in H.R. 6 is $8.1 billion over 11 years. The Senate tax provisions are expected by some to include more incentives for conservation and renewables than the House bill, and to exceed the level in the House bill.

The legislation reported from the House Committee on Resources (and now a part of H.R. 6) would open the Arctic National Wildlife Refuge (ANWR) to exploration and development. An amendment on the floor of the House to delete ANWR from H.R. 6 was also defeated (200-231). The legislation includes a "safe harbor" provision to protect methyl tertiary-butyl ether (MTBE) refiners from product liability suits, which was narrowly retained after a close vote on an amendment that reached the floor to drop the language (213-219). In the 108th Congress, this provision was included in the bill that was reported from conference. However, there was opposition to this provision in the Senate and it had a significant role in the defeat of the conference bill at the end of the first session of the 108th Congress. It is unclear how its inclusion may affect Senate passage of an energy bill in the 109th Congress. House Republicans indicated that a compromise will be sought to satisfy the other body.

On February 10, 2005, the House Science Committee reported H.R. 610, which includes less controversial research and development provisions that were part of comprehensive legislation debated in the 108th Congress. That legislation, approved by voice vote, would authorize roughly $44.1 billion over five years for research of deep sea drilling, clean coal technology, nuclear energy, fusion technology, and high-performance computers. The bill also would authorize funding to improve energy efficiency of vehicles and buildings. These provisions are also a part of H.R. 6.

Overall, the Energy Policy Act of 2005 as passed by the House and the comprehensive legislation reported from conference in the 108th Congress are very similar. Important differences are the ANWR language, fewer energy tax incentives, and inclusion of a refinery revitalization program that was passed by the House (H.R. 4517) during the 108th Congress, but not by the Senate. An amendment to drop the refinery program was defeated (182-248). Provisions that permit the Federal Energy Regulatory Commission to decide on the siting of

liquefied natural gas terminals are opposed by some policymakers as an override of states' rights. An amendment to eliminate these provisions from H.R. 6 had insufficient support (194-237).

In an address on energy policy on April 27, 2005, President Bush, proposed that new refineries be built on the site of closed military facilities, and that federal tax credits on the purchase of hybrid vehicles be extended to vehicles burning clean diesel fuel. The President offered the services of the Administration to assist in helping to reconcile controversial issues that might be standing in the way of enacting legislation.

The Senate Committee on Energy and Natural Resources ordered reported comprehensive energy legislation on May 26, 2005, and the bill was introduced as S. 10 (S.Rept. 109-78) on June 9. Floor debate began June14.

A general summary follows of issues that have gained attention in the energy policy debate, with a summary of some of the major proposals included in the energy bill passed by the House. Background about the debate in the 108th Congress is included where helpful.

Ethanol and MTBE. Of the many issues left unresolved in attempts to pass a comprehensive energy bill in the 108th Congress, a primary stumbling block was the effort to promote ethanol as an automobile fuel, and the related problem involving the gasoline fuel additive MTBE. The provision, referred to as the "safe harbor" provision, would provide protection from product liability lawsuits for producers of MTBE and renewable fuels.

The roots of the controversy lie in the Clean Air Act Amendments of 1990, which mandated that "reformulated" gasoline required in some localities to improve air quality contain 2% oxygen. This requirement could be met by adding ethanol to gasoline, but it could also be achieved by adding a substance called methyl tertiary butyl ether (MTBE), which had been produced in small quantities for many years as an octane enhancer. Because MTBE was cheaper than ethanol and was easier to mix and transport, many refiners began using it to meet the new standards.

However, as its use spread, it became apparent that MTBE tended to escape easily from its fuel carriers and storage tanks, and contaminate water supplies, imparting a taste and odor that was unpalatable even in small quantities. This development led to moves to restrict and prohibit the use of MTBE. It also led a number of communities to sue refiners for the cost of decontaminating their water supplies. At the same time, evidence began to accumulate that oxygenating gasoline was not necessary to achieve the air quality benefits of reformulated gasoline. (For additional information, see CRS Report RS21676, *The Safe-Harbor Provision for Methyl Tertiary Butyl Ether (MTBE)*, by Aaron Flynn, and CRS Report RL32865, *Renewable Fuels and MTBE: A Comparison of Selected Legislative Initiatives*, by Brent D. Yacobucci, Mary E. Tiemann, and James E. McCarthy.)

The omnibus energy bills in the 108th Congress addressed this changing situation by repealing the oxygenation requirement in the Clean Air Act, but adding a new mandate that gasoline have an increasing amount of renewable fuel, presumably ethanol. Consumption of ethanol in gasoline in 2002 was 2.1 billion gallons. Under the renewable fuel standard in H.R. 6, the amount required to be consumed would be 3.1 billion gallons in 2005 and 5.0 billion gallons by 2012. This would still be a small proportion of the total amount of

gasoline consumed, which was close to 150 billion gallons in 2004, but was expected to stimulate the ethanol industry and the agricultural sector that supplies it. It was opposed by oil industry interests, who complained of the mandated increase in consumption of ethanol, which receives a substantial tax credit. Some suggested that it would raise prices locally, despite the subsidy.

The measure was in the original House version of H.R. 6 [108], and remained in the conference bill, where it was a major factor in the failure of the Senate cloture motion. It was dropped from S. 2095 in an attempt to get the bill through the Senate, but on the House side supporters of MTBE producers declared opposition to any bill that did not contain a safe harbor provision.

In the 109th Congress, H.R. 6, as reported by the House Committee on Energy and Commerce on April 13, 2005, retained the safe harbor provision, and also the ethanol mandate; an amendment to remove the safe harbor provision was defeated in committee. When H.R. 6 reached the floor of the House, opponents raised a point of order on the safe harbor provision. The motion was defeated by a six-vote margin. The Senate version of H.R. 6 does not contain the safe harbor provision. It also would increase the renewable fuels/ethanol mandate from 5 billion gallons by 2012, in the House bill, to 8 billion gallons by 2012.

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, with estimates of technically recoverable resources there ranging from a 95% probability of 4.3 billion barrels to a 5% probability of 11.8 billion barrels. However, some argue that drilling for oil in ANWR will have unacceptable environmental consequences on wildlife and vegetation, and that the land should be left undisturbed.

The legislation passed by the House during the 108th Congress would have opened up ANWR, but the Senate bill did not. Once it became apparent that there were insufficient votes in the Senate to pass an energy bill with ANWR provisions, the managers decided to leave ANWR out of the final conference bill.

The FY2006 budget transmitted to Congress by the Administration supports opening ANWR to exploration and development. The budget projects bonus bid revenues at $2.4 billion, half of which would accrue to the federal government and the balance to Alaska. On March 9, 2005, the Senate Budget Committee issued a budget resolution that assumes $2.5 billion of revenue over five years from leases in ANWR, and would allocate $2.0 billion in mandatory spending to comprehensive energy legislation and $4.5 billion for energy tax incentives. On March 16 the Senate rejected an amendment by Senator Cantwell to strike the ANWR provisions, by a vote of 49-51. The next day the Senate passed the budget resolution (S.Con.Res. 18).

The House version of the budget resolution (H.Con.Res. 95) passed on March 17 did not include the ANWR provisions; however, the final version of the resolution passed by both Houses on April 28, 2005, instructs the Senate Committee on Energy and Natural Resources and the House Committee on Resources to find $2.4 billion in savings through FY2010. Reconciliation legislation is not subject to Senate filibuster. Consequently, the

comprehensive energy bill reported from the Senate Committee on Energy and Natural Resources does not include language authorizing exploration and development of ANWR as does the Energy Policy Act of 2005 (H.R. 6) passed by the House on April 21, 2005. An amendment to strip the language from the House bill during the House debate was defeated (200-231).

(For additional information, see CRS Issue Brief IB10136, *The Arctic National Wildlife Refuge: Controversies for the 109th Congress*, by Lynne Corn.)

Electricity Restructuring. Since the early 1990s, the electric utility industry has experienced a major transformation. Formerly the nationwide electricity system consisted of vertically integrated utilities with defined service areas, which they were responsible for supplying with power to meet demand. The rates they charged were set for the most part by state utility commissions, as were some other activities. Most power generating capacity was owned by the utilities themselves, as were transmission lines and power distribution systems. Utility commissions determined rates based not only on the cost of power but also on the need to fund additional plants to meet future power demand.

Starting in the 1980s, a number of unregulated entities began producing power for sale to utilities at wholesale, and in 1992 the Energy Policy Act (EPACT, P.L. 102-486) removed some of the regulatory barriers to such unregulated electricity generation. At present many regulated utilities have sold their generating capacity and become essentially transmission and distribution entities, and an increasing share of generating capacity across the nation is owned and operated by companies not regulated as utilities. Many states have joined in Regional Transmission Organizations (RTOs) to distribute independently produced power to local utilities, but the details of these systems vary widely. The principle behind the restructuring has been that power produced by a competitive market of independent generators should be cheaper than that produced by a regulated monopoly.

Most state restructuring plans have not immediately met initial expectations, and many have faced serious problems. In California in particular, a combination of several factors, including demonstrated manipulation of the market by some independent power producers, resulted temporarily in power shortages and extremely high prices to some consumers. The California experience slowed down the process of restructuring in many other states, and also raised barriers to an effort in the Congress to produce a uniform national restructuring system. A massive power failure in much of the Northeast in 2003 added demands for improving the reliability of power transmission systems between regions. As a result of these various developments, the electricity provisions of major energy policy bills have been a source of major controversy. The main issue is not whether utility restructuring should take place; it is the federal role in guiding a restructuring process that is already taking place.

The major legislative issues in electricity restructuring are:

- enforceable standards for transmission system operation and reliability;
- repeal of Public Utility Holding Company Act (PUHCA), which utilities say they need in order to operate in the new competitive market, but which critics fear will threaten consumer interests;
- the role of the Federal Energy Regulatory Commission (FERC) in setting rules for marketing independent power production; and

- access to utility-owned transmission lines by independent producers.

Measures to improve the reliability of the transmission grid have gathered wide support, and all the major energy legislation contained reliability provisions. However, as the broad energy legislation foundered in the 108th Congress, a split developed between those who wanted to push a stand-alone reliability bill and those who insisted on keeping it in the comprehensive bill.

PUHCA was enacted in the 1930s to keep speculation in utility stocks and finances from affecting the utility's ability to provide power to its service area. Utilities are under regulation from the Securities and Exchange Commission (SEC) and can invest in non-utility activities only if SEC finds that it will improve efficiency and service to utility customers. Advocates of PUHCA repeal argue that the statute is outdated and burdensome to utilities in the new competitive environment, and point to the abuses that led to the bankruptcy of Enron. The company had declared itself exempt from PUHCA regulation, and its self-declaration was not challenged until after the abuses were discovered, when an SEC administrative judge denied it. (For details, see [http://www.sec.gov/spotlight/enron.htm#enron_exempt].) Because these events occurred with PUHCA still on the books, repeal advocates contend that the statute is ineffective. But PUHCA repeal still has many opponents, who point out that utilities are still responsible for distributing power to customers, and their ability to do so could be adversely affected by unregulated and unsupervised activities and investments.

Until the restructuring and rise of unregulated power generators, FERC had the rather minor role in the power industry of regulating wholesale interstate transfers of power. Restructuring has thrust FERC into a much more important role of regulating the distribution of power from generators, some of them out of state, to utilities. FERC's activities during and following the California crisis have been highly controversial. In addition, FERC has proposed a rulemaking on "standard market design" (SMD) to create wholesale power markets that would allow sellers to transact easily across transmission grid boundaries (FERC Notice of Proposed Rulemaking, Docket No. RM01-12-000, 18 C.F.R. Part 35, July 31, 2002). This proposal has also raised concerns in some states that have resisted or delayed restructuring.

These issues were dealt with differently in the various bills considered in the 108th Congress. All the major bills contained some reliability measures, but issues of consumer protection, of market design and the role of FERC, and numerous other questions remained unresolved. All the major bills in the last Congress repealed PUHCA, as does the version of H.R. 6 in the 109th Congress passed by the House. S. 10 also includes PUHCA repeal language, but in markup a provision to give FERC additional merger review authority was added. The House-passed merger review provision would give FERC jurisdiction over transmission transactions. However, S. 10 FERC merger review authority would also apply to natural gas utilities and generation-only transactions. In addition, S. 10 requires FERC to determine that cross-subsidization would not result from a merger.

Most other electricity provisions in the House-passed H.R. 6 and S. 10 are essentially those contained in the electricity title as approved by the conference committee on H.R. 6 in the 108th Congress. Amendments to make major changes in this title of the bill were rejected during markup by the House Energy and Commerce Committee. One feature of that title,

Sec. 1242 in the Committee Print, providing for "participant funding" of transmission projects, raised opposition from a number of interested parties as being inflexible and potentially inequitable, and was dropped in markup. (For additional information, see CRS Report RL32925, *Electric Utility Provisions in House-Passed H.R. 6, 109th Congress*, by Amy Abel, and CRS Report RL32728, *Electric Utility Regulatory Reform: Issues for the 109th Congress*, by Amy Abel.)

Fuel Economy. Gasoline and diesel fuel consumption account for roughly 50% of U.S. total petroleum consumption. Many argue that higher requirements for new vehicle fuel economy could go far in reducing automobile fuel consumption or holding consumption levels steady in future years. One of the first initiatives designed to have a significant effect on vehicle fuel demand was passage of corporate average fuel economy standards (CAFE) in the Energy Policy and Conservation Act of 1975 (EPCA, P.L. 94-163). Under the standards, the average fuel economy of all vehicles of a given class that a manufacturer sells in a model year must be equal to, or greater than the standard. In the years since enactment, there have been periodic calls for stiffening or broadening the applicability of CAFE standards — especially as consumer demand has turned more to light-duty trucks and sport utility vehicles (SUVs), for which CAFE standards are set at a lower level than for passenger automobiles. The standard for passenger automobiles is 27.5 miles per gallon (mpg).

The 107th Congress lifted a prohibition on expenditure of appropriated funds by the National Highway Traffic Safety Administration (NHTSA) to undertake CAFE rulemakings. The lifting of the prohibition on NHTSA was a significant development, restoring the ability of NHTSA to perform analysis and rulemaking as it had until the rider was first imposed for FY1996. 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.

A study by the National Commission on Energy Policy released in early December 2004 recommended that Congress instruct NHTSA to raise the standards to take advantage of current technologies that have been used to enable vehicles to have more size and power without reductions to baseline fuel economy.[4]

The Energy Policy Act of 2005 passed by the House on April 21, 2005, includes provisions strongly similar to language that appeared in the omnibus energy legislation reported from conference during the 108th Congress. The legislation would authorize $2 million annually during FY2006-FY2010 for the National Highway Traffic Safety Administration (NHTSA) to carry out fuel economy rulemakings. It also would expand the criteria that the agency takes into account in setting maximum feasible fuel economy for cars and light trucks. The new criteria require NHTSA to consider occupant safety and automotive industry employment in its determination of the maximum feasible fuel economy.

[4] National Commission on Energy Policy, *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges*, December 2004. See [http://www.energycommission.org/ewebeditpro/items/O82F4682.pdf].

All but one of the CAFE amendments offered during the House debate on H.R. 6 were defeated. The latter included an amendment to raise the CAFE standard for passenger automobiles to 33 miles over ten years (177-254). Another concern about the CAFE program has been that consumers have noted that in-use fuel economy rarely meets rated fuel economy, despite an adjustment that is made to the fuel economy ratings that appear on stickers posted to new cars. An amendment directing the Environmental Protection Agency (EPA) to weigh additional factors in this adjustment was approved (346-85). The version of the energy bill reported to the Senate floor includes language only to provide NHTSA with $2 million annually to conduct CAFE activities during each of FY2006-FY2010.

Interest has continued in studying whether the CAFE standards and program should be restructured. Among the issues have been the definitions and regulations for passenger cars and light duty trucks. Critics argue that the current system encourages manufacturers to nudge larger passenger vehicles into the light truck category and penalizes manufacturers who serve the market for the heavier vehicles in the light truck category. One bill introduced in the House (H.R. 705) would require that standards gradually apply to vehicles up to 10,000 pounds gross vehicle weight (GVW). Basing CAFE on vehicle attributes was offered as another policy option. NHTSA has the latitude to make changes in the CAFE program, and one report at the end of March 2005 indicated that NHTSA was close to issuing a rulemaking making changes to the structure of the CAFE program. An amendment on the floor that would have required a reduction in U.S. oil demand by 1 million barrels below projected demand in 2013 was defeated (166-262). Though similar language was added to the Senate version of the energy legislation in the 108th Congress, and while it would have extended latitude to the President to use any means to achieve the goal, critics argued that it would compel an increase in CAFE standards.

However, the provision was added to the bill approved by the Senate Committee on Energy and Natural Resources, with a target year of 2015 to achieve the one million barrels per day savings. On June 16, during the debate on the bill, an amendment offered by Senator Cantwell that would have further required a 40% reduction in oil imports (7.6 mbd) by 2025 was rejected (47-53). While the benefit to energy security is clear were such a reduction achieved, one concern about the amendment was that meeting the goal would be highly likely to require a stiff increase in CAFE. (For additional information, see CRS Issue Brief IB90122, *Automobile and Light Truck Fuel Economy: The CAFE Standards*, by Robert Bamberger.)

Renewable Energy and Fuels. Policymakers have debated for a number of years the role that renewable fuels might play in displacing U.S. oil consumption. Skeptics have argued that the production of some renewable fuels will consume more energy than will be produced. However, others argue that the nation needs to develop alternative fuels and that the economics and energy intensity of producing these fuels will become competitive once a market for renewables can be established.

As noted above (see "Ethanol and MTBE"), a major feature of the energy bills of the 108th Congress was a requirement that an increasing amount of gasoline contain renewable fuels such as ethanol. An amendment to H.R. 6 agreed to on the floor of the House would authorize $300 million annually during MY2006-MY2015 to encourage production of advanced diesel and hybrid vehicles and to provide consumer incentives for their purchase. The program would be subject to appropriated funds. Another amendment that was approved

(239-190) would expand the types of renewable fuels under other provisions in H.R. 6 that would qualify for grants for the construction of production facilities. For a discussion of previously enacted tax cuts relating to renewables and alternative fuel, see the section on energy tax policy below.

For retail electricity suppliers, a Renewable Portfolio Standard (RPS) sets a minimum requirement (often a percentage) for electricity production from renewable energy resources or for the purchase of tradable credits that represent an equivalent amount of production. In the 109th Congress, two bills (H.R. 983 and S. 427) would establish an RPS. The Senate Committee on Energy and Natural Resources held a hearing on RPS on March 8, 2005. Regional differences in the availability of renewable resources, particularly resource availability in the southeastern United States, were a key issue at the hearing. In its markup of the energy legislation on April 12, 2005, the House Committee on Energy and Commerce rejected an amendment to add an RPS (1% in 2008, increasing by 1% annually through 2027)(17-30).

On June 16 the Senate adopted an amendment by Senator Bingaman mandating a federal RPS, which would require investor-owned utilities to generate at least 10% of their electricity from renewable energy sources, such as wind, solar, geothermal, or new hydroelectric facilities, by 2020. The vote was 52-48. Proponents noted a growing number of states with an RPS and argued that an RPS could reduce electricity bills. Opponents raised concerns about the exclusion of existing hydropower facilities and resource limits for the southeastern United States. (For information on renewable energy and fuels proposals in the 109th Congress, see CRS Report RL32860, *Energy Efficiency and Renewable Energy Legislation in the 109th Congres*s, and CRS Issue Brief IB10041, *Renewable Energy: Tax Credit, Budget and Electricity Production Issues*, by Fred Sissine.)

Energy Efficiency and Conservation. Over the years that energy policy has been debated, some have argued that improvements in the efficiency of energy use could reduce demand sufficiently to eliminate the pressure to discover new reserves of conventional fuels and to build more electric generation and transmission facilities. Energy efficiency is increased when an energy conversion device, such as a household appliance, automobile engine, or steam turbine, undergoes a technical change that enables it to provide the same service (lighting, heating, motor drive) while using less energy. The energy-saving result of the efficiency improvement is often called "energy conservation." The energy efficiency of buildings can be improved through the use of certain materials such as attic insulation, components such as insulated windows, and design aspects such as solar orientation and shade tree landscaping. Further, the energy efficiency of communities and cities can be improved through architectural design, transportation system design, and land use planning. Thus, energy efficiency involves all aspects of energy production, distribution, and end-use.

Energy efficiency and conservation issues have continued to be part of the debate over comprehensive energy legislation in the 109th Congress. H.R. 6, as passed by the House on April 21, 2005, would reauthorize many programs, would set a new goal for reducing federal facilities' energy use, would extend Energy Savings Performance Contracts (ESPC), would establish several standards for products and equipment, and could terminate cogeneration purchase requirements. Overall, many of the non-tax energy efficiency provisions in H.R. 6 are similar to the comprehensive bill considered in the 108th Congress. H.R. 6 also includes language that would provide a total of $8.1 billion in energy tax incentives, including $397

million in tax credits for energy efficiency. The bill would also provide an $18 million residential solar tax credit. However, critics of the bill argue that, to achieve the goal of reducing the cost of the measure, provisions favoring conventional fossil fuel production have been retained while many incentives to promote conservation and efficiency were dropped. (For more information, see CRS Report RL32860, *Energy Efficiency and Renewable Energy Legislation in the 109th Congress*, and CRS Issue Brief IB10020, *Budget, Oil Conservation, and Electricity Conservation Issues*, by Fred Sissine).

Energy Tax Policy. Some argue that the historical volatility of energy prices has been a disincentive to make investments in new energy-related technologies and infrastructure that might boost production of conventional fuels and encourage homeowners, for example, to invest in systems that would reduce energy consumption for heating, cooling, and water heating. Tax policy has been one option to encourage both supply and demand-reduction efforts.

The energy tax provisions of H.R. 6 (109th Congress) as passed by the House include an $8.1 billion, 11-year tax reduction of energy taxes, weighed almost entirely toward fossil fuels and electricity. The Senate Finance Committee June 16 approved a $14.1 billion, 11-year tax title aimed less toward fossil fuel production and more toward energy conservation and alternative fuels than the House measure.[5] (For more information, see CRS Issue Brief IB10054, *Energy Tax Policy*, by Salvatore Lazzari.)

The President's Hydrogen Fuel Initiative. Demand for hybrid vehicles that can operate on both gasoline and electric power has been strong. More hybrid models are scheduled to be introduced in the coming years. However, some see the hybrid vehicle as a "bridging" technology until research and development produces an economically practical fleet of hydrogen vehicles, and an infrastructure for fueling them.

In January 2003 President Bush announced a new research and development initiative for hydrogen as a transportation fuel. A goal of the Hydrogen Fuel Initiative, and previously established FreedomCAR initiative, is to produce hydrogen-fueled engine systems by 2015 that achieve double to triple the efficiency of today's conventional engines at a cost competitive with conventional engines.

Over five years, the Administration is seeking a total funding increase of $720 million. These initiatives would fund research on hydrogen fuel and fuel cells for transportation and stationary applications. The 108th Congress for FY2004 appropriated approximately $50 million for the initiatives ($20 million less than the Administration request) above the FY2003 level, and for FY2005 an additional $25 million above the FY2004 level. The Energy Policy Act of 2005 (H.R. 6) would authorize $4 billion during the period FY2006-FY2010. The comprehensive legislation in the 108th Congress would have set goals for the production of hydrogen-fueled passenger vehicles. No goals are included in H.R. 6.

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[5] U.S. Congress, Joint Committee on Taxation, *Estimated Revenue Effects of the Chairman's Amendment in the Nature of a Substitute to the "Energy Policy Tax Incentives Act of 2005,"* JCX-47-05, June 16, 2005.

Critics of the Administration initiative suggested that the hydrogen program was intended to forestall attempts to significantly raise vehicle CAFE standards, and that it relieves the automotive industry of assuming more initiative in pursuing technological innovations. In addition, they argue that hydrogen-fueled vehicles may ultimately be infeasible, and that attention and funding should be focused on other research areas. On the other hand, supporters argue that it is appropriate for government to become involved in the development of technologies that are too financially risky to draw private sector investment. At issue for these policymakers will be whether 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*.)

Nuclear Energy. Reauthorization of the Price-Anderson Act nuclear liability system has been one of the top nuclear items on the energy agenda. Under Price-Anderson, commercial reactor accident damages would be 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 $10.9 billion. Price-Anderson also authorizes the Department of Energy (DOE) to indemnify its nuclear contractors. Authorization of the system for new commercial reactors ran out at the end of 2003, but it continues in place for existing reactors. Congress in the FY2005 Defense Authorization Act (P.L. 108-375) reauthorized the act for DOE contractors through 2006. H.R. 6 as passed by the House would extend the authorization of Price-Anderson for both commercial plants and DOE contractors through 2025, as does the Senate version of H.R. 6.

Several provisions dealing with security at nuclear power plants were also included in the House-passed bill. One measure would authorize Nuclear Regulatory Commission licensees, including guards at nuclear plants, to carry weapons, preempting some state restrictions. Another would require fingerprinting of nuclear plant workers for criminal background checks.

Another provision authorizes $1.3 billion for the design and construction of nuclear-hydrogen cogeneration projects at the Idaho National Laboratory and at existing reactors. The purpose would be to explore production of hydrogen fuel from nuclear energy. Currently, natural gas is the main source for hydrogen fuel. The bill approved by the Senate Energy and Natural Resources Committee includes a similar authorization. The Senate version of H.R. 6 would also make advanced nuclear power plants eligible for federal loan guarantees, and the title being marked up by the Finance Committee would provide a tax credit for nuclear power production. (For more information, see CRS Issue Brief IB88090, *Nuclear Energy Policy*.)

LEGISLATION

H.R. 6 (Barton)

Energy Policy Act of 2005. Introduced April 18, 2005. Among other provisions, the bill would open up the Arctic National Wildlife Refuge (ANWR) to exploration and development, includes a "safe harbor" provision to protect methyl tertiary-butyl ether (MTBE) refiners from product liability suits, would establish a "refinery revitalization" program, and would permit the Federal Energy Regulatory Commission (FERC) to decide

on the siting of liquefied natural gas (LNG) terminals. Passed by the House on April 21, 2005 (249-183).

H.R. 610 (Biggert)

A bill to provide for federal energy research, development, demonstration, and commercial application activities, and for other purposes. Would authorize roughly $44.1 billion over five years for research of deep sea drilling, clean coal technology, nuclear energy, fusion technology, and high-performance computers. Would authorize funding to improve energy efficiency of vehicles and buildings. Introduced February 8, 2005, and referred to several House committees. Reported favorably by voice vote from the Committee on Science, February 10, 2005.

H.R. 705 (Gilchrist)

Automobile Fuel Economy Act of 2005. To amend 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 of up to 10,000 pounds gross vehicle weight; to increase the fuel economy of the federal fleet of vehicles, and for other purposes. Introduced February 9, 2005, and referred to House Subcommittee on Energy and Air Quality.

H.R. 1103 (Johnson)

Fuel Efficiency Truth in Advertising Act of 2005. Would direct EPA to update its test procedures for light-duty vehicles for the purpose of calculating vehicle fuel economy. Introduced March 3, 2005, and referred to House Committee on Energy and Commerce.

H.R. 1541 (Thomas)

Enhanced Energy Infrastructure and Technology Tax Act. To amend the Internal Revenue Code of 1986 to enhance energy infrastructure properties in the United States and to encourage the use of certain energy technologies, and for other purposes. Introduced April 12, 2005. Ordered to be reported (26-11), April 13, 2005.

S. 10 (Domenici)

Energy Policy Act of 2005. Includes provisions on electricity regulation and reliability, energy research and development, alternative fuels, and energy access to public lands. Introduced as an original bill and reported June 9, 2005, by the Committee on Energy and Natural Resources (S.Rept. 109-78). Ordered reported May 26 by a vote of 21-1. Text substituted for H.R. 6 June 14.

H.R. 6 (Tauzin) [108th Congress]

Enhances energy conservation and research and development, provides for security and diversity in the energy supply for the American people, and for other purposes. Introduced April 7, 2003. Passed House (247-175) April 11, 2003. Senate version passed (84-14) July 31, 2003. Reported from conference, November 17, 2003. Passed House (246-180) November 19, 2003. Motion to invoke cloture failed in the Senate (57-40), November 21, 2003.