

Section I

Background & Summary

Enacting comprehensive energy policy legislation has long been a goal for both congressional leaders and the Bush administration. Although energy bills have been considered in both chambers for several Congresses, various issues such as fuel additives and oil exploration in Alaska and at offshore sites have prevented the massive legislation from becoming law.

This April, the House passed [HR 6](#), Energy Policy Act, by a vote of 249 to 183. The measure, which closely followed the Bush administration's priorities, was very similar to energy legislation the House passed in both the 107th and 108th Congresses. While House action moved fairly quickly, the Senate was slower to draft and consider its version of the bill in an effort to draw bipartisan support. The Senate passed its version of the bill last month by a vote of 85 to 12.

Despite substantial differences in the House and Senate bills, conferees completed negotiations in a stunningly quick manner, approving the agreement after only about a week of meetings. With gasoline prices staying at more than \$2 per gallon, and increasing public awareness of reliance on foreign oil sources, lawmakers have viewed this as an opportune time to enact new energy legislation. And although the administration has supported energy bills in the past, this summer President Bush specifically called on Congress to pass a conference agreement by the August recess.

The fast agreement also was due in part to the fact that negotiators changed a controversial provision in the House bill — liability protection for makers of Methyl Tertiary Butyl Ether (MTBE), a fuel additive that reduces gasoline emissions but has polluted local water supplies. Supporters of the provision have argued that since MTBE was used to meet federal emissions standards enacted by Congress in 1990, manufacturers should be protected from lawsuits. Opponents have contended that MTBE cleanups could impose huge cost burdens on local governments, and that MTBE makers should have informed Congress of potential hazards to groundwater. Liability protection for MTBE makers blocked Senate adoption of a conference agreement on the energy bill in the 108th Congress, and again this year drew filibuster threats from some senators. Once conferees decided that no liability protection would be given MTBE makers, prospects for Senate passage greatly improved.

Negotiators also dropped a provision in the House bill that would have allowed oil and gas development in Alaska's Arctic National Wildlife Refuge (ANWR). While supporters of the provision had hoped to enact it as part of an energy bill, ANWR drilling may still be authorized as part of the budget reconciliation process in the fall. Including an ANWR drilling provision in previous energy bills had drawn filibuster threats in the Senate, but budget reconciliation legislation is protected from filibusters, so that only a majority vote would be required in the Senate. Senate GOP leaders, therefore, hope to open ANWR to oil and gas production by including it in the Senate's reconciliation package.

Summary of Conference Report on [HR 6](#)

The conference agreement on [HR 6](#) is intended to establish a comprehensive, long-range national energy policy, providing incentives for production of traditional energy sources and also for newer, more efficient energy technologies and conservation. It contains many new research and development programs while making changes to current energy policy.

MTBE

The measure does not contain a provision in the House bill that would have protected Methyl Tertiary Butyl Ether (MTBE) makers from lawsuits by cities and others for contaminated water supplies. The agreement, however, does allow any party in a lawsuit involving MTBE to request that the suit be moved to a federal district court.

Arctic National Wildlife Refuge

The agreement does not authorize oil and gas exploration, development, and production in the Arctic National Wildlife Refuge (ANWR) in Alaska. The House version of the bill would have permitted the Interior Department to grant leases for oil and gas development on a total of about 1.5 million acres.

Tax Provisions

According to the Joint Committee on Taxation (JCT), the conference agreement includes \$14.6 billion in tax breaks and \$3 billion in revenue-raising provisions, for a net reduction in federal revenues of \$11.5 billion over the 11-year period of FY 2005 through FY 2015. The agreement provides \$1.6 billion in tax incentives for investments in clean-coal facilities, and \$2.7 billion to extend the renewable electricity production credit; \$2.8 billion for fossil fuel production; \$1.3 billion for conservation and energy efficiency; and \$1.3 billion for alternative motor vehicles and fuels. It provides for a tax credit of up to \$3,400 for certain hybrid cars and trucks.

Ethanol

The measure increases the requirement that gasoline sold in the United States contain a specified volume of biofuel, which in most cases would be corn-based ethanol. Under the agreement, the annual average volume of renewable fuel additives would incrementally increase, reaching 7.5 billion gallons in 2012, more than triple the current amount. The House bill required an increase to 5 billion gallons annually, while the Senate bill required an increase to 8 billion gallons.

Auto Fuel Efficiency

The agreement, like both the House and Senate bills, does not increase the current fuel efficiency standards for cars and trucks. Instead, it directs the National Highway Traffic Safety Administration to conduct a study of the effects of increasing fuel efficiency standards on the auto industry, gasoline supply, and air quality.

Climate Change

The agreement establishes a new cabinet-level advisory committee, charged with developing a national policy to address climate change and to promote technologies to reduce greenhouse gas emissions. This national policy would be updated every five years.

Further, the Energy Department could authorize demonstration projects designed to test technology that limit harmful emissions.

The measure does not, however, require specific reductions in greenhouse gas emissions.

Other Provisions

The conference agreement also does the following:

Specifies that the Federal Energy Regulatory Commission (FERC), instead of state agencies, has the authority to approve the construction, expansion or operation of any facility that imports or processes natural gas, including liquefied natural gas;

Requires the Energy, Defense, and Homeland Security departments to conduct a study into the national security implications of China's increasing energy requirements, and assess its impact on the global market and U.S. foreign policy; and

Beginning in 2007, extends daylight-saving time by one month, from the second Sunday in March (instead of the first Sunday in April) through the first Sunday in November (instead of the last Sunday in October).

CBO Cost Estimate

This measure is an authorization measure and is not covered by spending limitations in the Budget Act or any budget resolution because it does not directly result in expenditures. The Congressional Budget Office (CBO) issued a preliminary review stating that if Congress appropriates the full amount authorized in the conference agreement, it would increase direct spending by \$2.2 billion over the period of FY 2006 through FY 2010, and would increase direct spending by \$1.6 billion over the period of FY 2006 through FY 2015. CBO has not yet determined the discretionary costs of the measure.

In addition, CBO and the Joint Committee on Taxation estimate that the agreement would reduce revenue by \$7.9 billion over the period of FY 2005 through FY 2010, and would reduce revenue by \$12.3 billion over the period of FY 2005 through FY 2015.

CBO determined that the measure contains numerous mandates on state and local governments as defined in the Unfunded Mandates Reform Act; however, the mandates do not exceed the annual threshold, which is currently \$62 million.

References

The House passed its version of the bill on April 21 by a vote of 249 to 183 (see House Action Reports [Fact Sheet No. 109-5](#) and [Floor Summary No. 109-3](#)). The Senate passed its version on June 28 by a vote of 85 to 12.

See CQ Weekly, pp. [1827](#), [1745](#), [1744](#), [1645](#), [1635](#), [1084](#), [1644](#), [1017](#), [937](#), [847](#), [846](#), [774](#), [381](#), [305](#) & [16](#). See 2004 Almanac, pp. 1-6, 9-4, 9-5, 13-3 & 13-4. See 2003 Almanac, pp. 1-9, 9-3, 9-4, 9-5, 9-6, & C-11.

Section II

Production & Supply

This section summarizes the provisions of the conference agreement on [HR 6](#), Energy Policy Act, that deal with energy production and supply, including renewable energy, nuclear energy, coal, and oil and gas leases. (Additional production-related provisions are contained in Section V, Tax Provisions.)

Arctic National Wildlife Refuge

Unlike the House version of the bill, the conference agreement does not authorize oil and gas development in the Arctic National Wildlife Refuge (ANWR) in Alaska. However, it is possible that drilling in ANWR could be authorized as part of the budget reconciliation process this fall.

Royalty Payments

Oil and gas companies are required to make royalty payments to the federal government for the oil they obtain under federal leases. The agreement contains several provisions relating to royalty payments by oil and gas companies.

In-Kind Payments

Like the House bill, the agreement allows the Interior Department to demand that oil companies pay royalties with oil or gas rather than with cash. The department could then sell the oil or gas, or transport or process it. The measure prohibits the department from using funds from the sale of in-kind payments for personnel, travel or other administrative purposes. For every year between 2005 and 2014 in which the department receives in-kind royalty payments, it would have to report to Congress on the methods and impact of taking such payments.

Offshore Leases in Gulf of Mexico

The measure authorizes the Interior Department to reduce royalty payments for deep gas wells leased in the shallow waters of the western and central areas of the Gulf of Mexico. The agreement specifies a methodology for determining the amount of royalty reduction. The provision would be in effect for only five years following enactment of the agreement.

Other Royalty Relief

The agreement provides for royalty-rate reductions for marginal gas and oil wells on federal lands. The measure defines marginal wells as those that produce no more than 15 million gallons of oil or gas per week. It allows the Interior Department to reduce royalty payments for gas producers in the Outer Continental Shelf (OCS) and in Alaska and for deep onshore natural-gas wells, and sets standards by which producers could qualify for such royalty relief. This provision is designed to encourage the production of natural gas.

Renewable Energy

As U.S. dependence on foreign sources of energy increases, renewable energy may provide a source of as-yet-untapped new domestic energy sources. In order to exploit that potential, the agreement contains a number of provisions to encourage the use of

renewable energy and subsequently decrease reliance on costly fossil fuels. It directs the Energy Department to annually review and report on renewable energy sources in the United States, such as wind power, solar energy, and biofuels. It authorizes \$10 million in each of fiscal years 2006 through 2010 for this report.

Biomass Grants

Biomass refers to fuels derived from renewable, organic sources, such as agricultural crops, trees, plants and animal waste. The measure authorizes the Interior and Agriculture departments to provide grants to owners and operators of facilities that produce electricity, heat, or petroleum substitutes using trees, plants, brush, and wood chips. To be eligible, the biomass would need to be derived from efforts to thin national parks and forests as a means of preventing forest fires or of reducing disease or insect infestation. Such grants could not exceed \$500,000 each.

The measure authorizes \$50 million in each of fiscal years 2006 through 2016 to carry out both of these biomass grant programs.

Geothermal Leases

Like the House bill, the agreement contains several provisions aimed at making geothermal energy more competitive with fossil fuels in generating electricity. While geothermal energy can refer to any form of naturally occurring heat from the ground, steam is currently the most practical and common source used for generating electricity.

The measure requires the Interior Department to hold a competitive lease sale every two years for areas that may produce geothermal energy. If the department receives no bids for a specific area, it would be authorized by the agreement to hold a non-competitive lease sale.

Under current law, the Interior Department may issue geothermal leases on Forest Service land only with the consent of the Agriculture Department. Presently, there is no common procedure for the Agriculture Department to process such requests. This agreement directs the departments to develop a memorandum of understanding that establishes coordinated administrative procedures for processing lease applications. The departments also would have to establish a program to reduce the backlog of applications for geothermal leases.

Hydroelectric Licensing, Incentive Payments & Production Schedule

Under current law, all applications to operate a hydroelectric facility are reviewed by federal environmental agencies. Those agencies can place conditions on the approval of a license, requiring the applicant to provide specified protections for water and wildlife. The agreement allows applicants and other interested parties to offer alternatives to those government conditions. The federal agency would be required to accept the alternative if it determines that the alternative provides adequate protection to the water and wildlife and, compared to the agency's requirement, will either cost less to implement or result in improved operation of the project. The measure provides for appeals to be heard by the Federal Energy Regulatory Commission.

The agreement authorizes incentive payments to hydroelectric facilities that begin operation within 10 years of enactment of this legislation. Facilities would be eligible for a sliding scale of payments based on their production, which are not to exceed \$750,000

per year. The agreement authorizes \$10 million in each fiscal year from 2006 through 2015 for these payments.

The measure also authorizes incentive payments for existing hydroelectric facilities to improve their efficiency by at least 3%. The payments could not exceed 10% of the cost of the upgrade, or \$750,000. It authorizes \$10 million for these payments in each of fiscal years 2006 through 2015.

Nuclear Energy

Provisions relating to nuclear energy and nuclear energy security in the conference agreement closely follow the House bill. It reauthorizes the Price Anderson Act, and includes provisions designed to enhance the security of nuclear reactors.

Price Anderson

The Price Anderson Act (PL 100-408) limits liability for nuclear power-plant accidents. Specifically, the law requires nuclear plant operators to purchase insurance policies that cover up to \$10 billion in damages, and the federal government is responsible for any damages in excess of the \$10 billion cap. This agreement extends authorization for the act until 2025.

Reactor Security

The measure contains a number of provisions aimed at enhancing the security of commercial nuclear reactors, including a directive that the president prepare a study of potential threats, that grants authorization to perform background checks on employees, that requires the Nuclear Regulatory Commission (NRC) to consult with the Homeland Security Department before issuing a license, and that authorizes the NRC to allow its employees and the employees of certain contractors and subcontractors engaged in the protection of nuclear facilities to carry firearms.

National Security Provisions

The agreement, like the House bill, prohibits the sale, export or transfer of nuclear materials and "sensitive nuclear technology" to any nation the State Department has identified as a state sponsor of terrorist activities. The president could waive this ban if such a sale is vital to national security, or if it is certified that the country has not encouraged international proliferation of nuclear weapons within the previous 12 months. Sales or exports of technology related to the removal of hazardous materials in such nations would not be affected.

The measure requires the Nuclear Regulatory Commission (NRC) to consult with the Homeland Security Department about potential vulnerabilities of a location of a planned nuclear facility before issuing a license for such a facility. It requires the NRC to collect fingerprints, or other biometric-identification data, for any individual who has access to certain nuclear facilities or applicants for licenses to operate facilities regulated by the commission. It also allows fully trained security personnel at nuclear facilities to carry firearms at the commission's discretion.

The agreement directs the president, in cooperation with the NRC and other federal, state and local entities, to conduct a study to identify security threats to nuclear energy facilities. The study would have to take into account the events of Sept. 11, the potential for suicide bombers, the potential for attacks using spent fuel, and other scenarios. The

measure requires the NRC to create a safeguards-response program for certain nuclear facilities, and requires the president to create a training program for the National Guard and for state and local law-enforcement agencies in responding to threats against nuclear facilities.

Uranium

The measure establishes conditions for the sale of uranium, and authorizes the export of highly enriched uranium for medical isotope production to Canada, Belgium, France, Germany, and the Netherlands. It also sets standards for the Energy Department to conduct domestic sales of uranium in any form, provided that the president determines that such uranium is not necessary for national security purposes.

Employee Benefits

The conference agreement contains a provision not included in the House bill that requires the Energy Department to ensure health benefits for certain employees. It requires that employees or contractors at the Portsmouth, Ohio, or Paducah, Ky., plants who were eligible to participate in federal health benefits plans continue to be eligible for those benefits.

Other Provisions

In addition, the conference agreement does the following:

- Authorizes \$100 million for two demonstration projects for the production of hydrogen through nuclear power;
- Allows the Nuclear Regulatory Commission to award scholarships or fellowships to students to pursue studies in nuclear science; and
- Expands whistleblower protections to federal contractors and subcontractors who work in nuclear energy.

Coal

The measure contains a number of provisions intended to increase the use of coal as an energy source, while also reducing air pollution. Like the House bill, the agreement repeals the current 160-acre cap on coal leases, allows for the advanced payment of royalties from coal mines, and requires an assessment of coal resources in federal lands other than national parks.

'Clean-Coal Initiative'

The clean-coal-technology program, co-funded by the government and industry, seeks to develop and disseminate clean-coal technologies that meet strict environmental standards. The agreement authorizes \$200 million in each of fiscal years 2006 through 2014 — the same as the House bill — for the clean-coal initiative. It includes a provision not in the House bill requiring that 70% of the funds for any project be used for coal gasification or other advanced technologies that produce a concentrated stream of carbon dioxide.

It directs the Energy Department to set technical milestones for clean-coal projects, with the goal of greatly reducing sulfur dioxide and mercury emissions by 2020.

The measure authorizes \$125 million for an experimental clean-coal plant, and creates grants to universities to establish clean-coal centers for excellence.

In addition, the agreement allows the department to provide loan guarantees for projects to cleanly produce energy from coal, authorizes a demonstration project to produce energy from coal mined in the Western United States, and authorizes a program to evaluate the potential of advanced technology to produce energy from Illinois basin coal.

Clean Air Coal Program

The agreement authorizes a new program designed to encourage power production through clean-coal electric generating equipment. The program would aim to reduce air pollution through encouraging industry to voluntarily perform at standards stricter than those under current law.

The measure allows the Energy Department to provide financial assistance, not to exceed 50% of the cost of any project, to projects that would reduce pollution, increase air quality, or result in newer, more efficient technologies. Between 25% and 75% of these projects would have to be for the sole purpose of generating electricity. For production programs, the measure authorizes \$250 million in FY 2007, \$350 million in FY 2008, \$400 million in each of fiscal years 2009 through 2012, and \$300 million in FY 2013, the same amounts as in the House bill.

In addition, the agreement authorizes \$300 million in FY 2007, \$100 million in FY 2008, \$40 million in FY 2009, and \$30 million in each of fiscal years 2010 and 2011. The total amount authorized for these projects is the same as in the House bill.

Oil & Gas

Liquefied Natural Gas Processing Sites

Most natural gas is delivered to U.S. users through pipelines, but as demand for the fuel has increased, the United States now imports the gas in a liquefied form, which is then processed for distribution.

Like the House bill, the agreement gives the Federal Energy Regulatory Commission (FERC) "exclusive authority" to approve the construction, expansion or operation of a facility that imports or processes liquefied natural gas. FERC would have the responsibility to design a schedule and to coordinate with state and federal agencies to grant those approvals. The measure directs the FERC to consult with state governments about the safety of sites for liquefaction or gasification facilities. The effect of the provision is to strip state and local authorities of the power to block such liquid natural gas importing or processing sites.

The agreement requires the Energy Department, in cooperation with the Transportation and Homeland Security departments and the FERC, to hold at least three forums on liquefied natural gas. The forums would be held in areas where liquefied natural gas terminals are being constructed, and would be designed to encourage cooperation between state and federal officials.

The conference agreement allows the FERC to authorize a natural gas company to provide storage facilities for natural gas storage at market-based rates. It also increases civil penalties for individuals or entities that knowingly violate laws regarding natural gas to \$1,000,000, from \$5,000.

Outer Continental Shelf

The agreement includes a provision not in the House bill that allows the Interior Department to conduct an inventory of oil and natural gas resources in the outer Continental Shelf (OCS) to assess the extent of these resources. It does not provide for oil and gas production on the parts of the OCS where such production is currently prohibited, such as off the California and Florida coasts.

Refinery Revitalization

As U.S. gasoline consumption is projected to increase, the need for refineries to produce gasoline and heating oil also grows. No new refinery has been built in the United States since 1976, and many older refineries are idle. The agreement allows the EPA to enter into agreements with state and local governments to expedite the approval process for new refineries.

Orphan Wells

Orphan wells are abandoned or capped wells that have no identifiable entity legally responsible for them or financially able to reclaim them. The agreement requires the Interior Department, in cooperation with the Agriculture Department, to establish a program to remediate, reclaim and close orphaned wells located on public lands. It also authorizes the Energy Department to provide technical and financial assistance to states to address orphan wells on state or private land. For the various orphan-well provisions, the measure authorizes a total of \$25 million in each fiscal year from 2006 through 2010, of which \$5 million per year would be dedicated to the program to assist states with orphaned wells on non-federal land.

American Indian Energy Development

The agreement creates a number of new programs to encourage energy-related initiatives on tribal lands. It establishes an Office of Indian Energy Policy and Programs within the Interior Department. The new office would coordinate efforts to promote tribal energy development in order to reduce or stabilize energy costs on Indian reservations.

Also within the department, the measure creates an Indian energy-resource-development program, which would provide grants and low-interest loans to tribes to develop energy resources. It authorizes such sums as may be necessary for these loans and grants in FY 2006 through 2016.

The agreement directs the existing Indian Energy Education Planning and Management Assistance Program in the Energy Department to provide competitive grants for education, studies, planning, or construction for energy facilities.

The measure establishes guidelines allowing tribes to enter into business agreements or grant leases or rights-of-way expressly for the purpose of energy development or transmission. Specifically, tribes would be able to submit to the Interior Department an application to enter into a tribal-energy-resource agreement with a separate entity. If the department approves that agreement, the tribe would be able to freely negotiate, without federal approval, leases or other business deals related to energy on tribal lands. Alternatively, the agreement allows tribes to grant leases or rights-of-way without federal approval if the terms of those agreements do not exceed 30 years.

The agreement also permits the Energy Department to issue loan guarantees to tribes; stipulates that federal agencies can give preference to tribes when purchasing energy; and

requires a report describing tribal use of power allocations from the Western Area Power Administration and the Bonneville Power Administration.

Additional Production Provisions

National Petroleum Reserve

The National Petroleum Reserve covers more than 23 million acres of public land on Alaska's North Slope. The measure directs the Interior Department to begin oil and gas exploration for the reserve. The oil and gas leases, issued by means of competitive bidding, would be for 10-year durations.

Great Lakes & Finger Lakes

The agreement bans new oil and gas drilling in the Great Lakes, and in the Finger Lakes. The House bill only encouraged state governments to consider or continue such bans, and expressed the sense of Congress that no new drilling should be permitted.

Section III

Conservation & Environmental Provisions

This section summarizes the provisions of the conference agreement on [HR 6](#) that deal with energy consumption and conservation — including a mandate to produce more ethanol, automobile fuel economy, alternative fueled vehicles, federal and state conservation programs, and energy efficiency of consumer products. (Additional conservation-related provisions are contained in Section V, Tax Provisions.)

MTBE

Methyl Tertiary Butyl Ether (MTBE) is a gasoline additive used as an octane booster that produces cleaner-burning gasoline. It has been used extensively since 1990, when Congress passed a law requiring a minimum oxygen content for gasoline. Since that time, MTBE has been found to contaminate groundwater when it leaks from underground storage tanks.

The measure does not contain a provision in the House bill that would have protected MTBE makers from lawsuits by cities and others for contaminating water supplies. The agreement does allow, however, any parties involved in a lawsuit regarding MTBE to request that the case be moved to a federal district court.

Like the House bill, the agreement eliminates the oxygenate requirement for fuels sold in high-pollution areas. The measure does not phase out the use of MTBE, as the House bill would have, but instead includes provisions designed to reduce toxic air pollutants.

The agreement requires the Environmental Protection Agency (EPA), within two years of enactment, to conduct a study of the public health and environmental impacts of using fuel additives other than MTBE. In addition, it requires the EPA to establish standards to reduce toxic air pollutants from gasoline with fuel additives.

Ethanol

In order to reduce fossil-fuel consumption, the agreement increases the specified amount of renewable fuel that gasoline sold in the United States must contain. Renewable fuel is produced from an organic source, such as grain, starch, oilseeds or other biomass. It also can come from a biomass source, such as sewage waste, landfill or other decaying organic matter, but ethanol made from corn is the most common form, by far, of renewable fuel. Renewable fuel is used as either a replacement for fossil fuels or as an additive to reduce fossil fuels.

Under the measure, the annual average volume of renewable fuel additives would incrementally increase, starting at 4 billion gallons in 2006, and reaching 7.5 billion gallons in 2012 — more than triple the current requirement. This represents a compromise between the House bill, which required 5 billion gallons by 2012, and the Senate bill, which would have required 8 billion gallons.

Starting in 2013 and thereafter, the amount of fuel additives would be determined by the Environmental Protection Agency (EPA) and the Agriculture and Energy departments, and would be based on the experience of increasing fuel additives in the previous seven years.

Ethanol is the renewable fuel additive expected to be utilized the most by gasoline producers to reach this goal. As such, the agreement requires the Federal Trade Commission to conduct an analysis within 180 days of enactment of the market concentration of ethanol, and to determine whether there is enough industry competition to avoid price-setting or other anti-competitive behavior.

State Waivers

Under the agreement, the Environmental Protection Agency, in consultation with the Energy and Agriculture departments, would have the authority to reduce or waive the requirement for a state in which a percentage of fuel sold in that state contains renewable fuel additives. The requirement could be waived if it is determined that the mandate would have a significant adverse economic or environmental impact on the state or region, or that there is an inadequate renewable-fuel supply or distribution capacity to meet the requirement. Any waiver granted would last one year, but would be renewable.

The Energy Department also could waive the requirement if it determines that the mandate would impose an economic hardship on a refinery.

The measure also directs the Energy Department to conduct a study within 180 days of enactment to determine whether the renewable-fuels mandate will adversely impact consumers in 2006 on a national, state or regional basis. The department would report its findings and make recommendations to the EPA, which would then have discretion, consistent with the Energy Department recommendations, to reduce or completely eliminate the mandate for the relevant station or region.

Other Ethanol Provisions

The conference agreement contains several provisions related to ethanol that were not in the House bill. It authorizes \$110 million in each of fiscal years 2005 through 2009 for demonstration projects to produce biodiesel fuel from biomass ethanol. It authorizes \$100 million in FY 2006, \$250 million in FY 2007, and \$400 million in FY 2008 for grants to

assist producers to construct facilities to make ethanol or other renewable fuels. In addition, it authorizes loan guarantees for projects that could produce ethanol using sugarcane or sugarcane by-products.

Daylight-Saving Time

The agreement extends daylight-saving time by one month instead of by two months, as in the House bill. Daylight-saving time would begin the second Sunday of March instead of the first Sunday in April, and would end the first Sunday of November instead of the last Sunday in October, effectively extending the daylight-saving time two weeks in the spring and fall. This provision is designed to reduce the amount of energy used to produce electric lighting at night by shifting the time to allow one more hour of daylight in the evening.

The measure requires the Energy Department to report to Congress within nine months of the daylight-saving time change's impact on domestic energy consumption. After reviewing the report, Congress could revert daylight-saving time to its current schedule.

Climate Change

The conference agreement contains several new provisions relating to climate change. It creates a new Climate Change Technology Advisory Committee that would coordinate federal activities and studies related to climate change in order to develop a national strategy to promote technologies to reduce greenhouse gas emissions. The provision does not mandate specific reductions in greenhouse gas emissions.

The president would appoint at least seven members to the committee, including the secretaries of the Commerce, Agriculture, and Transportation departments, and the administrator of the EPA. Within 18 months of enactment, the measure requires the committee to submit to the president and the Energy Department a plan to reduce greenhouse gas emissions through commercial technologies. That plan would have to be updated at least every five years.

The agreement also creates a new Climate Change Technology Program, which would assist the committee by coordinating federal research and development efforts, and allows the Energy Department to authorize demonstration projects relating to emissions-reducing technology.

Foreign Policy

In addition to domestic efforts to reduce greenhouse gas emissions, the measure directs the State Department to develop a foreign policy to help developing countries reduce their greenhouse gas emissions. It requires, within 180 days of enactment, the department to report to Congress on 25 developing countries that emit greenhouse gases. The department would then provide assistance to those countries in the form of bilateral agreements, private investments, or the export of technologies that reduce greenhouse gases.

Furthermore, the agreement directs the U.S. Trade Representative to identify and report to Congress on possible trade-relations barriers maintained by other countries that might hinder the ability of the United States to export technologies that help reduce emissions.

The agreement authorizes such sums as may be necessary for these activities designed to reduce greenhouse gas emissions.

Automobile Fuel Economy

Current law requires automobile manufacturers to produce a product line with an average fuel economy of 27.5 miles per gallon for cars and a 20.7 miles-per-gallon average for light trucks. The agreement authorizes \$3.5 million annually in each of fiscal years 2006 through 2010 for the National Highway Transportation Safety Administration (NHTSA) to enforce those standards — which are known as corporate average fuel economy (CAFE) standards. That total is \$7.5 million more than the House bill authorized. The measure does not require an increase in vehicle-fuel economy.

The agreement, like the House bill, also requires NHTSA to conduct a study of the feasibility and effects of reducing, by 2014, the amount of fuel consumed by automobiles. The study, to be completed within one year, would include consideration of alternatives to current CAFE standards.

Alternative Fueled Vehicles

Alternative fueled vehicles are vehicles that use fuel other than conventional gasoline — such as natural gas, ethanol, methanol, other alcohols, hydrogen, coal-derived products, biomass and electricity. This measure contains a number of provisions designed to encourage development and utilization of alternative fuels, including programs to provide alternative-fueled municipal vehicles and school buses. It requires the Energy Department to report, no later than 180 days after enactment, on the effect current law has on the development, availability and costs of alternative-fueled vehicles.

Hybrid Vehicles

Hybrid vehicles typically use both gasoline and electricity to provide engine power, thus greatly increasing the fuel efficiency. The agreement directs the Energy Department to create a program to encourage domestic production and sales of efficient hybrid vehicles, and authorizes such sums as may be necessary in fiscal years 2006 through 2015 for the program.

The measure establishes a program wherein the Energy Department could partner with private industry to provide the public with safe and affordable hydrogen-fuel-cell vehicles. These cars would need to have a range of at least 250 miles, consume greatly reduced amounts of petroleum, and have commercial sales potential within five years. For the initiative, the agreement authorizes \$3 million in FY 2006, \$7 million in FY 2007, \$10 million in FY 2008, and \$20 million in FY 2009. At least 20% of funding for research projects would have to come from non-federal sources. (The House bill authorizes a total of at least \$100 million for the hybrid-vehicle initiative.)

Hydrogen Fuel Cells

The agreement contains provisions to promote the research and development of vehicles powered by hydrogen fuel cells. Fuel cells generate power by combining oxygen from the air and hydrogen stored on board the vehicle. They are considered environmentally sound because they do not produce harmful by-products as do gasoline-powered engines, although some methods of producing hydrogen do produce numerous harmful emissions, and the production of hydrogen could consume more energy than the resulting hydrogen yields.

The conference agreement directs the Energy Department to conduct a research and development program to promote technologies relating to the production, distribution, storage, and use of hydrogen energy, with the goal of increasing the use of hydrogen fuel cells in vehicles. The program, in which the department would partner with the private sector, would aim to enable widespread production and commercialization of hydrogen-fuel-cell vehicles by 2020. In order to do this, the program would seek a commitment from automakers to be able to produce fuel-cell vehicles by 2015.

For fuel-cell technology programs, the agreement authorizes \$150 million in FY 2006, \$160 million in FY 2007, \$170 million in FY 2008, \$180 million in FY 2009, \$200 million in FY 2010, and such sums as are necessary in fiscal years 2011 through 2020. For programs promoting technology related to the storage, distribution, and transport of hydrogen, the agreement authorizes \$156 million in FY 2006, \$200 million in FY 2007, \$220 million in FY 2008, \$230 million in FY 2009, \$250 million in FY 2010, and such sums as are necessary in fiscal years 2011 through 2020.

In addition, the agreement authorizes \$15 million in FY 2008, \$25 million in FY 2009, \$65 million in FY 2010, and such sums as are necessary in fiscal years 2011 through 2015 for the federal government to begin to purchase hydrogen-fuel-cell vehicles.

State & Local Programs

The measure establishes a pilot program, to be administered through the Energy Department's Clean Cities Program, to provide 15 geographically dispersed grants to state or local governments, or metropolitan authorities, to acquire alternative-fueled passenger vehicles, motorized two-wheel bicycles, buses, delivery vehicles and airport ground-support vehicles. Eligible alternative-fueled vehicles would include fuel cell-powered, electric, hybrid, and ultra-low-sulfur diesel vehicles. In addition to the purchase of vehicles, eligible uses of the funds would include infrastructure, operation and maintenance costs.

The agreement directs the Energy and Transportation departments to make competitive awards for five-year projects involving the use of up to 25 fuel-cell buses, and authorizes \$10 million in each of fiscal years 2006 through 2010 for those awards.

School Bus Programs

Like the House bill, the measure establishes a Clean School Bus program that would replace school buses manufactured prior to 1991 with alternative-fueled school buses — those which utilize natural gas, hydrogen, propane, methanol, ethanol or ultra-low-sulfur diesel. The program also could retrofit buses with new, more efficient fuel technology. The school bus program would pay up to 50% of the cost of a new bus, or up to 100% of the cost of retrofitting technology. The measure authorizes \$55 million in FY 2006, \$55 million in FY 2007, and such sums as are necessary in fiscal years 2008 through 2010.

The agreement also authorizes \$25 million in each of fiscal years 2006 through 2009 for the Energy Department to cooperate with school bus companies in the development of hydrogen-fuel-cell buses.

Federal Agency Conservation Efforts

The agreement contains a number of directives to federal agencies and Congress, aimed at reducing their energy consumption.

Federal Consumption of Renewable Energy

The measure mandates that a certain percentage of electricity consumed by the federal government be generated by renewable energy resources. Specifically, the government would need to purchase at least 3% of its electricity from renewable sources starting in FY 2007. The requirement would increase incrementally to 7.5% in FY 2013 and beyond. Qualifying sources of renewable energy would include solar, wind, biomass, landfill gas, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project. To determine compliance with this mandate, the consumption of renewable energy by a federal facility would be doubled in the calculation if the renewable energy is produced at a federal facility, on federal land or on American Indian land.

Other Requirements for Federal Agencies & Congress

Like the House bill, the agreement mandates that federal buildings reduce energy consumption incrementally each year, starting in FY 2006. By FY 2015, agencies would need to reduce consumption by 20%, relative to 2003 levels. It also requires agencies, when acquiring new equipment, to purchase products designated as energy efficient by either the Energy Star program or the Federal Energy Management Program.

The agreement requires the Architect of the Capitol to develop, update, and implement a conservation and management plan for all congressional facilities to meet the same standards as federal buildings. In addition, it authorizes \$2 million for a study to evaluate the energy infrastructure of the U.S. Capitol.

The measure allows federal agencies to retain any funds appropriated for water expenditures that were not spent because of energy-efficient technology or other means of savings. Those retained funds could then be spent only on energy efficiency, water conservation, or unconventional or renewable energy projects.

The measure requires the Energy Department, within one year of enactment, to set standards regarding energy efficiency standards for new federal buildings. The goal would be for any new buildings to use 30% less energy than the current standards.

While the House bill required that at least 75% of all vehicles acquired by the federal government in FY 2006 and beyond to run on alternative fuel, the agreement requires the Energy, Commerce and Agriculture departments to use hybrid or other energy-efficient vehicles "to the extent practicable.

State Programs

The measure closely follows the House bill in that it reauthorizes, modifies, and enhances existing federal programs that are administered by states, or that assist states, with energy conservation.

Low-Income Home Energy Assistance Program

The Low-Income Home Energy Assistance Program helps low-income consumers in paying energy bills. The agreement reauthorizes the program at \$5.1 billion in each of fiscal years 2005 through 2007.

Weatherization Assistance Programs

The measure reauthorizes the current weatherization-assistance program, which provides grants to improve the energy efficiency of low-income homes. It reauthorizes the program at \$500 million in FY 2006, \$600 million in FY 2007, and \$700 million in FY 2008.

State Energy Conservation Programs

Current law provides guidelines for states to submit energy-conservation reports to the Energy Department. This agreement, like the House bill, amends those guidelines by recommending that states revisit their reports every three years, and establishes a goal of reducing energy consumption by 25%, over 1990 levels, by 2012. The measure also extends and increases federal assistance for state energy-conservation programs, authorizing \$100 million in FY 2006 and FY 2007, and \$125 million in FY 2008.

The measure also authorizes an additional \$30 million in each of fiscal years 2006 through 2010 for grants to states to design energy-efficient buildings.

State Appliance Rebate Program

The agreement provides matching funds for states that have or establish programs to provide rebates to residential consumers for the purchase of Energy Star products to replace used appliances of the same type. The measure authorizes \$50 million in FY 2006 through FY 2010 for this purpose.

Consumer Products

The conference agreement contains a number of provisions designed to increase the energy efficiency of consumer products, including the following:

- Requires the General Services Administration to conduct a study into the use of intermittent escalators, which use sensors to stop when not in use, in federal buildings;
- Directs the Energy Department to analyze energy efficiency standards for commercial refrigerators, freezers, air conditioners, clothes washers, and battery chargers; and
- Specifies procedures to test the energy efficiency of illuminated exit signs, traffic signals and compact fluorescent lamps.

Energy Star Program

The existing Energy Star program, established by administrative actions of the Environmental Protection Agency (EPA), is a voluntary program that identifies and promotes energy-efficient products and buildings. The agreement provides statutory authority for the program and divides its administration between the EPA and the Energy Department.

Energy Reduction in Public Housing

The measure requires the Housing and Urban Development Department (HUD) to develop and implement an integrated strategy to reduce utility expenses through conservation efforts and efficiency measures in the design and construction of public housing. The strategy would include energy-reduction goals and incentives for public-housing authorities. HUD would be required to report to Congress within one year on its

strategy for monitoring the energy usage of public-housing authorities and to provide Congress with an update every two years on implementation of its strategy.

Other Conservation Provisions

The agreement also does the following:

Authorizes a partnership between the Energy and Transportation departments, the EPA, the railroad industry, and locomotive manufacturers to develop train technologies that increase fuel economy, reduce emissions, and lower costs. It authorizes \$15 million in FY 2006, \$20 million in FY 2007, and \$30 million in FY 2008 for this effort, \$45 million less than authorized in the House bill.

Establishes a "Conserve by Bicycling Program," which would involve 10 geographically diverse pilot projects designed to encourage bicycling in order to reduce the use of fuels. It authorizes \$6.2 million for the program, which was not in the House bill.

Directs the Energy Department and NASA to enter into a partnership to develop "ultra-efficient" engine technology for aircraft. It authorizes \$50 million in each of fiscal years 2006 through 2010, \$25 million more than authorized in the House bill.

Section IV

Energy Markets & Distribution

This section summarizes the provisions of the conference agreement on [HR 6](#) that deal with energy markets and distribution, including electricity transmission, oil and gas pipelines, rights-of-way on federal land, the strategic petroleum reserve, and natural gas prices.

Electricity Transmission & Rates

The agreement contains a number of provisions relating to electricity transmission, including reliability standards, participation in Regional Transmission Organizations, rights-of-way for new transmission lines, repeal of the Public Utility Holding Company Act, rules for utility mergers, requirements for "smart" metering, and a prohibition on "round-trip" trading practices.

Reliability Standards

Like the House bill, the measure grants the Federal Energy Regulatory Commission (FERC) jurisdiction over reliability standards for electricity transmission networks. The commission would certify electric reliability organizations (EROs) and delegate to them authority to create and enforce the standards. EROs would have to file reliability standards and any other changes with the FERC, which could then approve or disapprove those standards.

All operators of bulk-electric-power systems would have to comply with the standards, which would be designed to limit instability and cascading failures that result from a sudden disturbance or unanticipated failure of system elements. EROs would have the authority to enforce penalties on any bulk-power operators that violate the standard or rule. However, the measure also allows the FERC to impose penalties if it finds violations.

The agreement exempts Alaska and Hawaii from this provision.

Transmission Rates

Like the House bill, the agreement directs the FERC to establish incentive-based rates for interstate electricity transmission by public utilities within one year of enactment. This provision is intended to promote investment in electric transmission networks and technologies in order to ensure reliability. Additional incentives would be made for participation in regional transmission organizations.

The agreement allows the FERC to require any utility company that transmits electricity in multiple states to provide transmission services at rates comparable to those which the utility company charges itself. The FERC could exempt companies that sell fewer than four million megawatt hours of electricity per year, or do not operate a large-scale transmission system.

The measure allows the Energy Department to establish an Advanced Power System Technology Incentive Program, in which the department could make incentive payments to support industry development of technologies to ensure reliability and thereby reduce the cost of power. It authorizes \$10 million in each of fiscal years 2006 through 2012 for these payments.

New Transmission Lines

The agreement authorizes the FERC to issue permits for the construction of new power lines, or the modification of existing lines, in areas it deems to be "congested" if the relevant state cannot act within one year. The commission also would be able to issue a permit if the relevant state places conditions on its approval that will prevent the project from significantly reducing transmission congestion.

If the proposed line is to be on private property, and an agreement cannot be reached with the landowner, the measure allows the permit holder to ask a district court to grant eminent domain right-of-way, in which case the court would award the permit holder the property and determine the amount of compensation owed to the original property owner.

When the proposed power line is to be on federal property, the measure designates the Energy Department as the lead agency in coordinating all related federal authorizations and environmental reviews. The department would be responsible for producing a single environmental review on which the permit acceptance would be based. It also would be able to set a deadline for an expeditious process, and would be responsible for making the final determination.

Repeal of Public Utility Holding Company Act

The agreement repeals the 1935 Public Utility Holding Company Act, which restricts the ownership and operations of power companies and their ability to control energy prices. The repeal would be effective six months after enactment, unlike the House bill, which

would have repealed the law one year after enactment. The agreement replaces the law with provisions designed to provide disclosure of power company finances. Specifically, it provides the FERC — and, to a lesser extent, state authorities — with the power to examine all relevant books, records, accounts, and memoranda belonging to a company that owns or partly owns a power facility. The measure authorizes such funds as may be necessary to carry out this provision.

Utility Mergers

The measure requires all sales or leases of facilities valued in excess of \$10 million and all mergers to be approved by the FERC. It sets forth procedures by which the FERC would provide notice and hearings about any proposed merger.

"Smart Metering"

Like the House bill, the agreement requires electric utilities to provide customers, at their request, with service based on a real-time rate schedule, under which the rate charged by the power company varies by the hour, or a smaller interval of time, according to changes in the electricity utility's wholesale power costs. The intent of this provision, which would take effect within 18 months of enactment, is to enable individual customers to manage energy use and cost. The rates would reflect the variance in the costs of generating and purchasing electricity at the wholesale level.

The agreement requires the Energy Department to educate consumers about the availability and benefits of advanced metering, as well as working with states and energy companies to develop the smart metering technologies.

Market Transparency Rules

The measure directs the FERC to establish rules to provide the public and the government with information to facilitate price transparency and participation in markets. The rules would have to provide for the distribution of "timely" information about wholesale electric energy prices, as well as transmission. The information would be available to federal agencies, buyers and sellers of wholesale electricity, and the public. The FERC would ensure that the disclosure of information would not harm the energy market or consumers.

Rights-Of-Way

Rights-of-way through federal lands are long-term leases conveying the right to construct, operate, maintain, and remove electrical transmission lines, communication facilities, and oil and gas pipelines on federal lands. They are issued by the Interior Department's Bureau of Land Management (BLM) and the Agriculture Department's Forest Service.

The measure authorizes an internal review of existing rights-of-way on federal lands to address the process and timeframe for issuing rights-of-way. It also directs both the Interior and Agriculture departments to determine ways to improve coordination in order to expedite the process of considering permits. Further, the measure requires the two departments to enter into a memorandum of understanding in setting forth a "timely" administrative process to consider oil and gas leasing on federal land. Also, it sets a 10-day limit for the departments to respond to permit applications for leasing.

The agreement requires the Agriculture, Commerce, Defense, Energy and Interior departments, in consultation with the FERC, to prepare a report designating new corridors on federal land that are needed for oil and gas pipelines or electricity transmission. Designations for corridors in the western United States would be due within two years of enactment of this measure. Designations for the remaining areas would be due within four years.

Strategic Petroleum Reserve

The Strategic Petroleum Reserve was originally created by the 1975 Energy Policy and Conservation Act to be available to reduce the impact of oil import disruptions. The reserve is authorized to hold one billion barrels of crude oil, though the facility, which is composed of five salt caverns in Louisiana and Texas, has a capacity of 700 million barrels.

This agreement directs the Energy Department, as soon as practical, to acquire oil to fill the reserve to its full capacity of one billion barrels. It requires the department to establish guidelines to acquire crude oil that maximize domestic supply, increase cost-effectiveness, and protect national security.

The agreement does not contain a provision in the House bill that would have required the Energy Department to suspend the delivery of royalty-in-kind oil payments to the Strategic Petroleum Reserve until prices drop to \$40 per barrel for two consecutive weeks on the New York Mercantile Exchange.

Leaking Underground Storage Tank Fund

The Leaking Underground Storage Tank (LUST) Trust Fund is a federal program created by Congress in 1986 in order to finance the cleanup of sites where underground storage tanks have leaked petroleum or other hazardous substances. The LUST Trust Fund finances oversight and enforcement of owners or operators of leaking tanks, who are responsible for the leaks. The fund also provides for cleanup at sites where the owner or operator is unknown, unable or unwilling to take action. The fund is financed through a 0.1-cent per gallon tax on motor vehicle fuel sold in the United States. In order to receive money from the fund, states must enter into an agreement with the federal government to use the money only for specific cleanup purposes.

The agreement stipulates that the Environmental Protection Agency (EPA) distribute at least 80% of yearly available funds from the LUST Trust Fund to participating states for cleanup of hazardous sites or for enforcement activities. The remaining money — up to 20% of available funds — could also be used for the enforcement of regulations relating to leaking storage tanks.

The measure requires extra leak-containment measures for underground tanks that are installed or replaced within 1,000 feet of a community drinking-water system or a potable drinking-water well. It requires manufacturers and installers of underground storage tanks to maintain evidence of financial responsibility in order to cover the costs of faulty manufacture or installation. States that receive trust funds would have to require manufacturers to be licensed or certified in some way.

The agreement directs that any underground storage tanks that have received LUST Trust Fund money and have not had an inspection since 1998 be inspected within two years of

enactment. It requires state authorities to conduct on-site inspections to ensure compliance with federal law. Such tanks would require on-site inspections at least once every three years thereafter.

It allows states to decide that certain tanks cannot hold any more materials, and bans deliveries to those tanks. It also puts forth standards for underground tanks on federal and tribal lands.

The agreement authorizes \$605 million in each of fiscal years 2005 through 2009 for the LUST Trust Fund and related activities, the same amount as in the House bill.

Section V

Tax Provisions

This section describes the provisions of the conference summary on [HR 6](#) that deal with energy tax credits and deductions. According to the Joint Committee on Taxation (JCT), the measure includes \$14.6 billion in tax breaks and \$3 billion in revenue-raising provisions, for a net reduction in federal revenues of \$11.5 billion over the 11-year period of FY 2005 through FY 2015.

The House-passed bill in tax included \$8.1 billion in tax credits and deductions over 11 years, with \$7.5 billion (93%) of the total derived from tax cuts for energy production. The Senate bill provided a net reduction in federal revenues of \$14.1 billion. In the final conference report, tax writers struggled to reconcile the House energy bill's emphasis on oil and gas production with the Senate bill's focus on renewable energy and conservation.

The conference agreement provides \$9 billion in energy infrastructure incentives including, \$1.6 billion for investments in clean coal facilities and \$2.7 billion to extend the renewable electricity production credit; \$2.8 billion for fossil fuel production; \$1.3 billion for conservation and energy efficiency; and \$1.3 billion for alternative motor vehicles and fuels.

Production & Supply Tax Provisions

The conference agreement contains a number of provisions intended to encourage the production and supply of oil, gas and electricity. The Joint Committee on Taxation (JCT) estimates that these provisions would reduce federal revenue by \$9 billion over 11 years.

Credit for Investment in Clean Coal Technology

The measure provides a 20% tax credit for the use of integrated gasification combined cycle (IGCC) generation technologies. The measure also provides a 15% tax credit for gasification projects that convert coal, petroleum residue, biomass, or other materials recovered for their energy or feedstock value into a gas composed primarily of carbon monoxide and hydrogen for direct use or subsequent chemical or physical conversion. The House bill included no comparable provision.

JCT estimates that these provisions would reduce revenues by \$1.6 billion over 11 years.

Depreciation of Electricity Transmission Property

Like the House bill, the agreement establishes a 15-year depreciation period — down from 20 years under current law — for property used in the transmission of electricity for sale and related land improvements. The provision is limited to property for which the original use begins after the date of enactment. The provision is effective for property placed in service after April 11, 2005, but does not apply to property that was subject to a binding contract on or before April 11, 2005.

JCT estimates that this would reduce revenue by \$1.2 billion over 11 years.

Production Credit for Wind Energy & Biomass Electricity

Under current law, a tax credit is allowed for a number of wind energy and biomass electricity initiatives, including the production of electricity from wind, "closed-loop" biomass produced from plants grown specifically to produce electricity, poultry-waste facilities, "open-loop" biomass (including agricultural livestock waste nutrients) facilities, geothermal energy facilities, solar energy facilities, small irrigation power facilities, landfill gas facilities and trash-combustion facilities. This credit is part of the general business credit and generally may not exceed the taxpayer's tax liability over \$25,000, or the taxpayer's tax liability under the alternative minimum tax (AMT). Excess credits may be carried back one year and carried forward up to 20 years.

The credit is indexed for inflation and for 2005 is 0.9 cents-per-kilowatt-hour for open-loop biomass, small irrigation power facilities, landfill gas facilities and trash-combustion facilities, and 1.9-cents-per-kilowatt-hour for all other qualified renewable electricity. For wind and closed-loop biomass facilities, the credit is available for a 10-year period for facilities placed in service by the end of 2005, and the amount of the credit that may be claimed is phased out as the market price of electricity exceeds certain threshold levels. The credit is available for five years for the remaining facilities. The credit for refined coal in 2005 is \$5.481 per ton and is available for 10 years.

The agreement extends the placed-in-service date by two years, through 2007, for wind, closed-loop, open-loop, geothermal, small irrigation power, landfill gas and trash-combustion facilities. Under the measure, electricity from hydropower and Indian coal would be eligible for the tax credit, and the credit would be extended for 10 years for all renewable electricity sources under this provision, except that the credit for Indian coal would be available for seven years, beginning in 2006, through 2012.

The agreement also permits agricultural cooperatives to pass any portion of the credit through to their members.

JCT estimates that this provision would reduce federal revenue by \$1.1 billion over the six-year period of FY 2005 through FY 2010, and \$2.7 billion over 11 years.

Amortization for Pollution Control Facilities in Older Plants

Under current law, the cost of a certified pollution-control facility can be depreciated over a five-year period. A "certified pollution control facility" is defined as a treatment facility that is used in a plant in operation before 1976 to control water or air pollution, and that does not lead to a significant increase in output or capacity, to an extension of

the useful life, to a reduction in total operating costs for the plant, or to an alteration in the nature of the manufacturing production process.

Like the House bill, the agreement repeals the requirement that plants be in operation before 1976 in order to write-off the cost of pollution-control facilities over a five-year period. Under the measure, certified air-pollution-control facilities — but not water-pollution-control facilities — used in connection with an electric generation plant that is primarily coal-fired and placed in service after April 11, 2005, could write off the cost of pollution-control facilities over five years regardless of whether the associated plant was in operation prior to 1976. The measure also provides a seven-year amortization period for air-pollution-control facilities used in connection with electric generation plants placed in service after 1975.

JCT estimates that this provision would reduce federal revenue by \$1.1 billion over 11 years.

Nuclear Decommissioning Costs

Under current law, owners of nuclear power plants are required to establish and make contributions to independent trust funds for the decommissioning of nuclear plants when they are retired. Amounts paid to these trusts are tax deductible up to an amount determined by federal or state regulators under a cost-of-service requirement. Under current law, the fund may accumulate only enough reserves to pay for decommissioning costs incurred after 1984.

The agreement repeals the cost-of-service requirement for deductible contributions to a nuclear decommissioning fund, so that all contributors to a qualified fund, including unregulated contributors, would be allowed a deduction for amounts contributed to a qualified fund. The measure also repeals the 1984 limitation on amounts that could be accumulated in a fund, and allows amounts sufficient to cover the present value of 100% of the estimated decommissioning costs. The measure also allows deductible contributions to the fund after the plant has gone out of service. The provision would be effective beginning in 2006, and is estimated to cost \$1.3 billion over 11 years.

Clean Renewable Energy Bonds

The measure authorizes the issuance of \$800 million of tax-credit Clean Renewable Energy Bonds, through 2007, to support renewable investment by municipal power authorities, rural cooperatives and others.

JCT estimates that this provision would cost \$411 million over 11 years.

Tax Treatment on Income for Rural Electric Cooperatives

The measure makes a number of changes to current law to allow rural electric cooperatives to exempt from taxation income earned from certain transactions with nonmembers of the cooperative. Currently, cooperatives are exempt from federal taxes as long as 85% of their annual income comes from members of the cooperative. JCT estimates that this provision would cost \$277 million over 11 years.

Credit for Production from Advanced Nuclear Power Facilities

The agreement provides a tax credit of 1.8 cents-per-kilowatt-hour for electricity produced at an advanced nuclear power facility during the eight-year period beginning on the date the facility was placed in service. Under the measure, an advanced nuclear

facility is defined as such if the reactor design is approved by the Nuclear Regulatory Commission after 1993 and placed in service by 2021. The total credit that could be claimed under the measure during the eight-year period would be subject to limitation based on allocated capacity and an annual limitation.

JCT estimates that this provision would cost \$278 million over 11 years.

Operating Loss Carryover For Certain Electric Utility Companies

In general, a net operating loss — the amount by which a taxpayer's allowable deductions exceed gross income — may be carried back two years, or carried forward 20 years, to offset taxable income in those years.

The measure temporarily extends for five years the net operating loss (NOL) carryback period for the taxable years 2003 through 2005 for certain electric utility companies. The amount of the NOL would be limited to 20% of combined qualifying investment in transmission and pollution control equipment.

JCT estimates that this provision would reduce revenue by \$52 million over 11 years.

Domestic Fossil Fuel Tax Provisions

The conference agreement includes a number of provisions aimed at increasing domestic fossil fuel production. JCT estimates that these provisions would reduce federal revenue by \$2.8 billion over 11 years.

Non-Conventional Fuel Production Credit

Under current law, certain fuels produced from non-conventional sources, such as oil produced from shale and tar sands, are eligible for a tax credit of \$3 per barrel, or British thermal unit (Btu) oil barrel equivalent, adjusted for inflation. It is not part of the general business credit, and unused amounts cannot be carried forward or carried back to other tax years. Under current law, the credit is set to expire at the end of 2007.

Like the House bill, the agreement makes the credit for producing fuel from a non-conventional source part of the general business credit. Any unused credits could be carried back one year or carried forward up to 20 years. The provision would be effective beginning in 2006, but no carryback of unused credits would be permitted for taxes paid prior to 2006. The measure also adds a production credit for facilities generally placed in service before 2010 that produce coke or coke gas. JCT estimates that these provisions would cost \$189 million over 11 years.

Expensing for Equipment Used in Refining Liquid Fuels

Under current law, the cost of petroleum refining equipment is written off over a 10-year period.

The measure permits businesses to deduct as a business expense in the year they occur 50% of the costs of purchasing equipment used in the refining of liquid fuels. The deduction would be available for equipment placed in service after the date of enactment and before 2012.

JCT estimates that this provision would reduce revenue by \$406 million over 11 years.

Depreciation of Natural Gas Pipelines

Under current law, natural-gas-distribution pipelines have a recovery, or depreciation, period of 20 years.

The agreement establishes a 15-year recovery period for natural-gas-distribution lines. JCT estimates that this provision would reduce revenue by \$1.1 billion over 11 years. The provision would sunset at the end of 2010.

The measure also establishes a seven-year depreciation period for natural-gas-gathering lines, and the allowable amount of depreciation would not be reduced by the alternative minimum tax (AMT). This provision is estimated to cost \$16 million over 11 years.

Natural Gas Payment from Tax-Exempt Bond Arbitrage Rules

The measure exempts from "arbitrage" rules certain bond-financed prepayments by public utilities for natural gas, by creating an exception to the general rule that tax-exempt, bond-financed prepayments violate the arbitrage restrictions. JCT estimates that this provision would reduce federal revenue by \$53 million over 11 years.

Geological & Geophysical Expenses

Currently, geological and geophysical costs are considered capital expenses and are not deductible as ordinary business expenses in the year they occur.

Like the House bill, the agreement permits companies to deduct geological and geophysical costs incurred in connection with oil and gas exploration in the United States to be amortized, or deducted, over two years.

The provision is effective for costs incurred or paid after the date of enactment, and would reduce revenue by \$974 million over 11 years.

Small Oil & Gas Producers

Currently, independent oil and gas producers receive a number of special tax breaks under the tax code. An independent producer is currently defined as one that refines no more than 50,000 barrels a day.

Like the House bill, the measure increases to 75,000, from 50,000, the barrel-per-day limit, and allows the limit to be calculated on a yearly average basis, rather than on a daily basis as under current law. JCT estimates that this provision would reduce revenue by \$158 million over 11 years.

Conservation & Other Provisions

The agreement includes provisions intended to improve energy conservation and efficiency in homes and businesses. JCT estimates that these provisions would reduce revenue by \$1.3 billion over 11 years, all of which would sunset by the end of 2007.

Tax Deduction for Energy Efficient Commercial Buildings

The measure provides a tax deduction for energy efficient commercial buildings meeting a 50% energy reduction standard. The maximum deduction would be \$1.60 per square foot of the building. The provision would be effective beginning in 2006, and would apply to property placed in service before 2008. JCT estimates that this provision would reduce revenue by \$243 million over 11 years. All these provisions are sunset at the end of 2007.

Business Tax Credit for Construction of Energy Efficient Homes

The measure provides a credit to contractors for the construction of new energy-efficient homes. The credit would be \$1,000 for construction that reduces energy consumption by 30% for manufactured homes, and would be \$2,000 for homes with construction that reduce energy consumption by 50%. The provision applies to homes whose construction is substantially completed after 2005 and which are purchased prior to 2008. JCT estimates that this provision would cost \$28 million over 11 years.

Tax Credit for Improving Energy Efficiency

The measure provides a temporary, nonrefundable 10% individual tax credit for energy-efficient improvements — such as improvements to insulation, exterior windows — made to existing homes. The maximum credit would be \$500. The credit would be effective for improvements made in 2006 and 2007.

JCT estimates that these provisions would reduce revenue by \$556 million over three years.

Tax Credit for Energy Efficient Appliances

The agreement provides a business tax credit for manufactures of certain energy-efficient clothes washers, dishwashers and refrigerators. The amount of the credit depends on the appliance and the energy efficiency of the appliance. The manufacturer could not claim credits in excess of \$75 million for all taxable years. The provision applies to appliances produced in 2006 and 2007. JCT estimates that this provision would reduce revenue by \$180 million over two years.

Energy-Efficient Equipment Tax Credits

The conference agreement provides a temporary, nonrefundable 30% tax credit for the purchase of qualified solar water-heating equipment, photovoltaic devices and fuel cell equipment used exclusively for purposes other than heating swimming pools and hot tubs. The maximum credit for each of these systems would be \$2,000.

The credit applies to purchases made after the date of enactment and before 2008. JCT estimates that these provisions would reduce revenue by \$31 million over the period of FY 2006 through FY 2008.

Business Fuel Cell Investment Credit

The measure includes a temporary 30% tax credit for the installation of qualified fuel cells, and a 10% credit for the purchase of stationary microturbine power plants. The credit would be available for 2006 and 2007, and would reduce revenue by \$222 million over 11 years.

Alternative Motor Vehicles and Fuels Incentives

The measure includes \$1.3 billion in tax incentives for the production of alternative fuels and motor vehicles.

Alternative Power Motor Vehicle Credit

The measure provides tax credits for the purchase of hybrid, fuel cell, advanced lean burn technology and other alternative power vehicles. The amount of the credit would vary depending on the weight and the rated fuel economy of the vehicle. The credit for hybrid cars and trucks ranges from \$400 to \$3,400; from \$4,000 for fuel cell vehicles; and

\$4,000 to \$32,000 for large alternative-fuel vehicles. The provision would apply to vehicles purchased beginning in 2006 and before 2015 for fuel-cell vehicles; before 2011 for hybrid cars, light trucks, advanced lean-burn technology vehicles and alternative fuel motor vehicles; and before 2010 for hybrid medium and heavy trucks. The tax credit would decline for hybrid vehicles after a manufacturer's hybrid vehicle sales exceed 60,000.

JCT estimates that this provision would reduce revenue by \$874 million over 11 years.

Credit for Installation of Alternative Fueling Stations

The measure provides a 30% tax credit for the cost of installing clean-fuel vehicle refueling equipment to be used in a trade or business or installed at the principal residence of the taxpayer. In the case of retail clean-fuel refueling equipment, the allowable maximum would be \$30,000; and the maximum credit for residential use would be \$1,000. The credit would be effective for equipment placed in service in 2006 through 2009. JCT estimates that this provision would reduce revenue by \$71 million over 11 years.

Extend Income and Excise Tax Credits for Biodiesel Fuel

The measure extends, from 2006 through 2008, the income tax credit and excise tax credit for biodiesel and biodiesel mixtures, and provides a similar income and excise tax credit for renewable diesel fuel. JCT estimates that these provisions would reduce federal revenue by \$194 million over three years.

Small-Business Agri-Biodiesel Producer Credit

The measure provides a 10-cents-per-gallon tax credit for agri-biodiesel produced by small producers. The credit would be available beginning on the date of enactment and would sunset at the end of 2008. JCT estimates that this provision would reduce revenue by \$181 million over 11 years.

Revenue Raising Provisions

The measure includes provisions that increase federal revenue by \$3 billion over 11 years.

Oil Spill Liability Trust Fund

Between 1990 and 1994, a five-cent-per-barrel tax was imposed on crude oil received at U.S. refinery and imported petroleum products, and any domestically produced crude oil exported from the United States if, before exportation, no taxes were imposed on the crude oil. Taxes received were credited to the Oil Spill Liability Trust Fund.

The agreement reinstates, through 2014, the Oil Spill Liability Trust Fund tax beginning in April 2006, or if later, the last day of any calendar quarter for which the Treasury Department estimates that the unobligated balance of the fund is less than \$2 billion. The tax would be suspended during a quarter if the department estimates that the unobligated balance exceeds \$2.7 billion.

JCT estimates that this provision would increase federal revenue by \$2.5 billion over 11 years.

Extend LUST Tax

The agreement extends the Leaking Underground Storage Tank Trust (LUST) tax through Sept. 30, 2011, and applies the tax to dyed fuel. JCT estimates that this provision would increase revenue by \$349 million over 11 years.

Modify "Recapture" Rules for Amortization of Intangible Assets

The measure modifies the "recapture" rules for writing off the cost of "Section 197" intangibles, such as information base, licenses or permits issued by a government agency or a franchise, trademark or trade name. JCT estimates that this provision would increase revenues by \$171 million over 11 years.

Section VI

Research & Development

This section summarizes the provisions of the conference agreement on [HR 6](#) that deal with energy-related research and development involving fusion research, energy efficiency, renewable energy, and fossil fuels.

Energy Efficiency

The agreement authorizes the Energy Department to conduct energy-efficiency and conservation-related research, including standards for vehicles, buildings, commercial business, and used batteries. It stipulates that the goals for these programs would include increased energy efficiency and energy security, thus reducing U.S. demand for energy from foreign sources.

The measure authorizes \$783 million in FY 2007, \$865 million in FY 2008, and \$952 million in FY 2009. These funds would be allocated to new programs, including a next-generation lighting initiative, a building-performance initiative, and a program to find secondary uses for used batteries.

Next-Generation Lighting Initiative

The agreement authorizes a "next-generation lighting initiative" that would develop by 2012, and facilitate the commercial application of, advanced solid-state lighting technologies based on white-light-emitting diodes. The goal of the program would be to provide longer lasting, more energy efficient and cost-competitive lights compared to conventional light sources. The Energy Department would select an industry alliance made up of private entities that work with lighting. The department would award grants and conduct research for the initiative. The measure authorizes \$50 million in each fiscal year from 2007 through 2009 for the initiative

Advanced Technology Transfer Centers

The measure requires the Energy Department to make grants to nonprofit institutions, state and local governments, or universities to establish a geographically dispersed network of Advanced Energy Technology Transfer Centers. The centers would encourage the demonstration and commercial application of advanced energy methods

and technology through education and outreach to building and industry professionals. The agreement defines advanced energy methods and technologies as those that promote energy efficiency and conservation. The measure requires non-federal matching of at least 20% of the costs of establishing and operating each center.

Renewable Energy

For research and development of renewable energy, the agreement authorizes \$632 million in FY 2007, \$743 million in FY 2008, and \$852 million in FY 2009. The total is \$1.7 billion less than the House bill.

Programs in this account include solar power, renewable energy in public buildings, and bioenergy, which produces fuel from using agricultural by-products, including poultry fat and poultry waste. (See Section II, Production and Supply, for more renewable-energy provisions.)

Bioenergy Programs

In addition to authorizing research into ways to process and produce biofuels, the agreement authorizes an additional \$200 million in each of fiscal years 2006 through 2015 for a major bioenergy initiative. Biobased materials refer to substances, other than food, that are made up of biological products, renewable agricultural or forestry materials, and can be converted to energy or fuel. The measure stipulates that the biomass initiative would focus on encouraging "abundant commercial production of biobased fuels at prices competitive with fossil fuels." The initiative would aim to produce 1 billion gallons of biofuels by 2015, and to produce biofuels at a competitive cost after 2015. In addition, the program allows the Energy Department to award grants to small businesses for biofuel marketing, and requires the Agriculture Department to conduct public education and outreach about biofuels.

Nuclear Energy

The agreement authorizes several research initiatives designed to explore the potential of U.S. nuclear energy and to reduce the environmental impact of nuclear energy production. Specifically, it calls for the Energy Department to conduct a "Nuclear Power 2010 Program" with a goal of establishing new nuclear power plants by 2010. The measure also directs the department to conduct an advanced-fuel recycling technology demonstration program that would attempt to address environmental and public-health impacts of nuclear energy.

For nuclear energy research, the measure authorizes \$330 million in FY 2007, \$355 million in FY 2008, and \$495 million in FY 2009. The total authorization for nuclear research is about \$1 billion less than the House bill.

'Next Generation' Nuclear Power Plant

The agreement directs the Energy Department to conduct a project to design, build and operate a nuclear power plant that could generate electricity, hydrogen, or both. The Idaho National Laboratory would be the lead laboratory for the project, although it would coordinate with other research institutions. The measure specifies that the project would focus on high-temperature hydrogen production, energy conversion technology, nuclear fuel development, and reactor design.

The measure directs the Energy Department to ensure the flow of information between all entities involved in the project. It sets a goal of completing the project, including construction of the reactor, by Sept. 30, 2021. The agreement authorizes \$1.3 billion over the period of FY 2006 through FY 2015, and such sums as are necessary in each of fiscal years 2016 through 2021 for this project.

Fusion Energy Research

Fusion energy is created by combining nuclei instead of splitting them, and does not produce environmentally damaging side effects such as radioactive waste. It is believed that with further research, fusion energy could provide significant electrical or hydrogen power. The measure earmarks \$356 million in FY 2007, \$370 million in FY 2008, and \$385 million in FY 2009 for fusion research.

ITER, which means "the way" in Latin, is an international research project into fusion energy's capability to provide electricity. The project involves the United States, China, the European Union, Japan, Russia and Korea. The measure authorizes the Energy Department to negotiate a U.S. role in the ITER project, as long as it clearly defines the U.S. role and ensures that financial and research interests are protected. It requires the department to report to Congress on funding and management plans for any international ITER agreement.

Fossil Fuels

For research and development of fossil fuels, the measure authorizes \$611 million in FY 2007, \$626 million in FY 2008, and \$641 million in FY 2009. The total for the three-year period is \$1.2 billion less than the House bill. This account funds research involving the commercial application of oil and gas, including exploration, production, storage, and distribution. The measure also provides funding for research on coal mining and coal applications. This account, however, does not provide funding for the clean-coal initiative. (See Section II, Production and Supply.)

Ultra-Deepwater Drilling

The agreement contains a number of provisions to provide for ultra-deepwater and unconventional exploration and production of oil and gas. Ultra-deepwater refers to water depths greater than 1,500 meters. Unconventional drilling refers to drilling in areas deemed to be inaccessible or not economically viable. Specifically, the agreement directs the Energy Department to contract with a consortium to advise the department and to manage and disburse grants to promote ultra-deepwater drilling technologies. It also establishes an Ultra-Deepwater and Unconventional Natural Gas Research Fund. Of the royalties collected on federal oil and gas leases during fiscal years 2007 through 2016, "excess royalties" of up to \$50 million would be deposited in the ultra-deepwater and unconventional fund each year. (Excess royalties refer to the difference between the market price when a royalty payment is made and 110% of the projected market price for the fiscal year.) In addition to that funding, the agreement authorizes \$100 million in each of fiscal years 2007 through 2016 for the fund.

Energy Reliability

The agreement authorizes \$240 million in FY 2007, \$255 million in FY 2008, and \$273 million in FY 2009 for the Energy Department to conduct research and development into ways to distribute energy in order to improve stability. It directs the department to create

a demonstration program to ensure the reliability and efficiency of electrical transmission and distribution systems. The program would incorporate grid reliability technology, advanced metering and load management systems, or other new technology.

The measure also allows the department to establish a research program to develop and promote portable power devices. Such devices would be small, portable mechanical or electromechanical units to assist with communication, computation, weapons systems, sensors, medical devices or biological-agent detection.

Office of Science

For the Energy Department's Office of Science, the agreement authorizes \$4.2 billion in FY 2007, \$4.6 billion in FY 2008, and \$5.2 billion in FY 2009. This account funds fusion-energy sciences, advanced scientific computing, biological research, and general administration of the office.

One of the largest projects authorized under the science office is a rare isotope research project, which studies rare isotopes that may have previously existed on earth but no longer occur naturally in order to better understand nuclear physics. The research also has led to the development of new medical technologies. Like the House bill, the agreement directs the Energy Department to begin construction of a Rare Isotope Accelerator facility by Sept. 30, 2008. It authorizes \$1.1 billion for activities related to the facility prior to opening.

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