



ALLIANCE TO
SAVE ENERGY

Creating an Energy-Efficient World

November 18, 2005

Energy-Efficiency Provisions in the Energy Policy Act of 2005

Following more than four years of debate, the United States has a new comprehensive energy bill for the first time since 1992. The House of Representatives passed the conference report to The Energy Policy Act of 2005 on July 28 by a vote of 275-156; the Senate followed suit the next day, voting 74-26 in favor of the bill; and President Bush signed the bill (H.R. 6) into law on August 8, 2005 (PL 109-58). Although the bill falls short of making energy efficiency a cornerstone of our nation's energy policy, there are several important energy-efficiency provisions that will help Americans save money and energy while reducing pollution. Below is a summary of the energy-efficiency measures in HR 6. For more detailed information, please see the full text of the bill, which can be found on the Alliance to Save Energy website at http://www.ase.org/uploaded_files/policy/Energy_Bill_Final.pdf.

Buildings Energy Efficiency

Federal Building Energy Management

Section 101 directs the Architect of the Capitol to develop a cost-effective energy conservation plan for congressional facilities, to be presented to Congress by February 4, 2006. The plan must include informational packets detailing ways to save energy at the workplace. The Architect of the Capitol also is directed to submit an annual report on congressional energy-efficiency measures.

Section 102 sets goals of reducing energy intensity (energy use per square foot) of the buildings of each federal agency by 2 percent per year from 2006-2015, compared to their 2003 energy use.

Section 103 directs all federal buildings to be metered by October 1, 2012, to the maximum extent practicable with advanced meters that track energy use at least hourly and provide data at least daily. No more than six months after the Department of Energy (DOE) sets guidelines for the agencies (which must be done by February 4, 2006), each agency must submit a plan to DOE detailing how it intends to meet this requirement.

Section 104 requires federal agencies to purchase products rated for energy efficiency under the Energy Star program or designated as energy-efficient by the Federal Energy Management Program (FEMP) of DOE. DOE is to establish guidelines for this provision by February 4, 2006.

Section 105 extends the Energy Savings Performance Contracts (ESPC) program for federal buildings to September 30, 2016. This program allows federal agencies to partner with energy service companies that finance, install, and maintain new energy-efficient equipment in government facilities. The government pays for these energy-efficiency improvements using its utility savings. By law, the government pays no more per month for utilities and EPSC

payments than it would have paid for utilities before the improvements. Once the energy companies have been paid in full, significantly lower utility bills result.

Voluntary Industrial Energy-Efficiency Agreements

Section 106 authorizes DOE to enter into voluntary agreements with members of the industrial sector to reduce the energy intensity of their production activities by at least 2.5 percent per year from 2007-2016. DOE will publicize the achievements of the industrial partners, who will be eligible for grants and technical assistance from DOE.

Advanced Building Efficiency Testbed Program

Section 107 establishes a DOE Advanced Building Efficiency Testbed program, to be led by a university, that will develop and test advanced energy-efficiency technologies for federal and industrial buildings. \$6 million per year is authorized for fiscal year (FY) 2006 – FY 2008 (\$18 million total).

Increased Federal Use of Recovered Mineral Components

Section 108 directs federal agencies to implement fully by August 8, 2006 procurement requirements and incentives for the use of recovered mineral components (waste material or byproducts) in cement or concrete projects. An Environmental Protection Agency (EPA) study is to examine the energy savings and environmental benefits of the procurement requirements. A report on the study must be submitted to Congress by February 8, 2008.

Federal Building Standards

Section 109 requires federal buildings to meet the 2004 International Energy Conservation Code (IECC) for residential buildings and the ASHRAE Standard 90.1-2004 for commercial buildings. By August 8, 2006, DOE must establish building energy-efficiency standards that direct new federal buildings to use at least 30 percent less energy than mandated by either the ASHRAE standard or the IECC.

Daylight Savings Time Extension

Section 110 extends Daylight Savings Time three weeks in the spring and one week in the fall, starting in the spring of 2007. DOE must submit a report to Congress on the energy consumption impact of these changes by December 2007.

Increased Use of Energy Efficiency in Management of Federal Lands

Section 111 directs federal agencies to use more energy-efficient technologies when managing natural resources. Energy-efficient buildings and motor vehicles are to be incorporated as much as possible on federal lands.

Low-Income Energy Assistance Programs

Section 121 authorizes \$5.1 billion per year for FY 2005 – FY 2007 (\$15.3 billion total) to the Low-Income Home Energy Assistance Program (LIHEAP), which helps low-income households pay their energy utility bills. States can also use some of this funding for weatherization assistance.

Section 122 authorizes \$500 million for FY 2006, \$600 million for FY 2007, and \$700 million for FY 2008 to the Weatherization Assistance Program, which assists states in weatherizing low-

income homes. It also changes the definition of “low-income” to include income levels up to 150 percent of the national poverty level.

State & Local Energy-Efficiency Programs

Section 123 directs DOE at least once every three years to invite each state to review and potentially revise its state energy conservation plan. For federal assistance each state energy conservation plan must include at least a 25 percent improvement in energy efficiency by 2012 as compared to 1990. Authorizes \$100 million per year for FY 2006 and FY 2007, and \$125 million for FY 2008 (\$325 million total) for State Energy Program grants.

Section 124 authorizes \$50 million per year for FY 2006 – FY 2010 (\$250 million total) to DOE for matching funding (up to 50 percent) for state programs to provide rebates to consumers for the purchase of residential Energy Star appliances to replace used appliances.

Section 125 authorizes \$30 million per year for FY 2006 – FY 2010 (\$150 million total) to DOE to provide grants to state energy offices to assist local government units in improving energy efficiency in public buildings and facilities through construction or renovation of public buildings that use at least 30 percent less energy than mandated by the IECC or than baseline energy use.

Section 126 authorizes \$20 million per year for FY 2006 – FY 2008 (\$60 million total) to DOE to award grants to local governments, non-profit community development organizations, and Indian tribe economic development entities to improve energy efficiency and develop alternative energy in low-income rural and urban communities.

Section 127 authorizes the existing State Technologies Advancement Collaborative (STAC), a cooperative program of DOE and the states (the National Association of State Energy Officials and the Association of State Energy Research and Technology Transfer Institutions) for research and development of energy efficiency, renewable energy, and fossil energy technologies. Such funds as necessary are authorized for FY 2006 – FY 2010.

Section 128 authorizes \$25 million per year for FY 2006 – FY 2010 (\$125 million total), and such sums as necessary for FY 2011 and later, to DOE for assistance to states in setting and implementing building energy-efficiency codes. Up to one half of appropriated funds above \$5 million each year can be used for a new program to fund state implementation of plans to achieve and document at least a 90 percent compliance rate with the codes. To qualify for the new program, states must have adopted both a residential code that meets or exceeds the 2004 IECC, and a commercial building code that meets or exceeds ASHRAE Standard 90.1-2004. For states in which there is no statewide code, the money can go to local governments that meet the above standards.

Energy Star Program

Section 131 authorizes the existing Energy Star program under DOE and EPA. Energy Star identifies, labels, and promotes energy-efficient products and buildings. The provision requires Energy Star regularly to update its criteria, and sets transparency and lead-time requirements. It also requires DOE to set new energy-efficiency qualifications for clothes washers and for dishwashers by January 1, 2006, effective January 1, 2007 (these criteria are used for the tax

incentives in Sec. 1334). New energy-efficiency qualifications for clothes washers would again be required by January 1, 2008, effective January 1, 2010.

Energy-Efficiency Public Education

Section 132 directs DOE by February 4, 2006 to carry out a program to educate homeowners and small business owners on proper maintenance of air conditioning, heating, and ventilation systems, to ensure maximum efficiency. Also, the Small Business Administration, with DOE and EPA, must develop a program to help small businesses become more energy-efficient, building on Energy Star for Small Businesses. As part of this program they may create a Small Business Energy Clearinghouse to provide resources for small businesses seeking to become more energy-efficient. Such sums as necessary are authorized.

Section 133 directs DOE to convene a conference by February 4, 2006 to establish an ongoing, self-sustaining national public energy education program. Representatives from industrial firms, professional societies, educational organizations, trade associations and governmental agencies will be invited. The program will examine energy efficiency, the role of energy use in the economy, and the impact of energy use on the environment. Such sums as necessary are authorized.

Section 134 directs DOE to carry out a comprehensive energy-efficiency public information campaign, including advertising and media awareness, to inform consumers about the need to reduce energy consumption, benefits to consumers and the economy, and ways of doing so. Specific measures are to include maintaining and repairing heating and cooling ducts and equipment, weatherizing homes and buildings, purchasing energy efficient products, and proper tire maintenance. A report detailing the effectiveness of the program must be submitted to Congress by July 1, 2009, and the program will end December 31, 2010. \$90 million per year is authorized to the DOE for FY 2006 – FY 2010 (\$450 million total).

Appliance Energy-Efficiency Standards

Section 135 establishes new federal appliance efficiency standards. New standards are legislated for ceiling fan light kits, dehumidifiers, unit heaters, torchiere lamps, medium base compact fluorescent lamps, 34-W fluorescent lamp ballasts, mercury vapor lamp ballasts, illuminated exit signs, traffic signals and pedestrian signals, commercial prerinse spray valves, and low voltage dry-type distribution transformers.

In addition, DOE is directed to develop standards for vending machines by August 8, 2009, and for additional kinds of ceiling fan light kits by January 1, 2007. DOE is to determine whether to set standards for battery chargers and external power supplies by August 8, 2008. DOE is given the authority to regulate ceiling fan air circulation, furnace fans, and products that serve more than one function. In addition, DOE is to determine whether to update the dehumidifier standard by October 1, 2009.

The provision sets associated definitions and test procedures, or directs DOE to issue them. It preempts state standards and labeling upon enactment of new legislated standards, and when a final rule is issued setting other standards, except that preexisting state laws are usually preempted only when the federal standard takes effect.

Section 136 legislates energy-efficiency standards on commercial package air conditioning and heating equipment; commercial refrigerators, freezers, and refrigerator-freezers; automatic commercial ice makers; and commercial clothes washers.

It also directs DOE to set standards on ice-cream freezers, self-contained commercial freezers, refrigerator-freezers without doors, remote condensing commercial refrigerators, freezers, and refrigerator-freezers by January 1, 2009, and gives DOE authority to set standards for other such products and for other ice makers. It requires DOE to determine whether to update most of the standards. And it sets associated definitions and test procedures.

Product Energy-Efficiency Labels

Section 137 directs the Federal Trade Commission (FTC) to commence a rulemaking by November 6, 2005 that considers the effectiveness of consumer products labeling in assisting consumers to make energy-efficient purchasing decisions, and considers changes to the labeling rules that could improve their effectiveness. The rulemaking must be completed by August 8, 2007. A rulemaking also must be done by the FTC on labeling requirements for ceiling fans by February 8, 2007. FTC is given the authority to label other newly covered products except dehumidifiers.

Intermittent Escalators

Section 138 directs the General Services Administration (GSA) to conduct a study on the pros and cons of using intermittent escalators (escalators that only run at the approach of a passenger). The study will address the prospective energy savings and cost savings that would result from their use. A report on the study must be submitted to Congress by August 8, 2006.

State and Utility Energy-Efficiency Programs

Section 139 directs DOE, with the National Association of Regulatory Utility Commissioners and the National Association of State Energy Officials, to conduct a study of state and regional policies that promote electric and natural gas demand-side management programs run by regulated and nonregulated utilities. The study is to include consideration of performance standards, funding sources, infrastructure planning, consumer education, and returns on and disincentives for such programs. DOE must submit a report to Congress on the study by August 8, 2006.

Section 140 directs DOE to establish a pilot program under which it will give financial assistance to 3-7 states to carry out energy-efficiency programs that reduce consumption of electricity or natural gas in the state by at least 0.75 percent per year. \$5 million per year is authorized for these programs for FY 2006 – FY 2010 (\$25 million total).

DOE Report on Missed Deadlines for Energy-Efficiency Standards

Section 141 directs DOE to submit a report to Congress by February 8, 2006 for every new or revised energy-efficiency or water use standard that DOE has failed to issue by the set deadlines. The report will explain the reasons for the missed deadlines and set a new timetable. Every six months following the report – until the adoption of the new standard – a new report must be submitted describing DOE's progress.

Energy Efficiency in Public Housing

Section 151 permits funds from the Public Housing Capital Fund to be used for improvements to increase energy and water use efficiency in public housing. It also clarifies the authority of public housing agencies to enter into energy-efficiency contracts and to retain the savings.

Section 152 directs public housing agencies to purchase appliances designated by Energy Star or by FEMP as energy-efficient, unless it is not cost-effective.

Section 153 requires new and rehabilitated public housing that is funded by HOPE VI revitalization grants to meet the 2003 IECC by September 30, 2006, or to meet a standard that the Department of Housing and Urban Development (HUD) sets.

Section 154 requires HUD to develop a strategy to reduce utility costs through energy-efficiency measures and energy-efficient design and construction of public and assisted housing. A report on the strategy must be submitted to Congress by August 8, 2006, and must be updated every two years.

Vehicles Efficiency

Federal Alternative Fuel Vehicle Requirements

Section 701 requires federal dual-fuel vehicles (which can run either on gasoline or diesel or on an alternative fuel such as ethanol) that are used to meet alternative fuel vehicle (AFV) requirements to be operated on the alternative fuel.

Section 703 allows states and alternative fuel providers (mostly utilities) to ask DOE for a waiver of AFV requirements if they can achieve the same petroleum savings through some other means, while remaining in compliance with all relevant vehicle emission standards. Fleets with waivers must report to DOE by December 31 every year on their fuel savings.

Section 704 requires DOE to submit to Congress, by February 4, 2006, a study on the effect that the Energy Policy Act of 1992 has had on developing AFV technology, on increasing its availability in the market, and on the cost of AFVs.

Hybrid Vehicle Provisions

Section 706 directs DOE to establish a grant program to improve technologies for the commercialization of hybrid flexible fuel vehicles and plug-in hybrid flexible fuel vehicles. DOE is directed to issue a report to Congress by April 15, 2006 and annually thereafter. Authorizes \$3 million for FY 2006, \$7 million for FY 2007, \$10 million for FY 2008 and \$20 million for FY 2009 (\$40 million total).

Section 711 directs DOE to step up efforts to improve technologies used in hybrid vehicles.

Section 712 directs DOE to establish a program, including grants to automakers, to encourage domestic production of efficient hybrid and advanced diesel vehicles, and authorizes such sums as necessary for FY 2006 – FY 2015 for this program.

Clean Cities Pilot Program

Sections 721-723 direct DOE, with DOT, to establish a competitive grant pilot program through the Clean Cities Program to provide up to 30 grants to state and local governments and transportation authorities to acquire alternative fuel, fuel cell, or hybrid vehicles; install fueling and other infrastructure; and conduct operation and maintenance. The maximum amount of a grant will be \$15 million over no more than five years, and the grant cannot pay for more than half of the project cost. DOE is to issue a report to Congress on the grants. In addition, by August 8, 2008, and every year thereafter, DOE is to submit to Congress a report evaluating the effectiveness of the program. Authorizes a total of \$200 million for these grants.

Railroad Efficiency

Section 751 directs DOE, with DOT and EPA, to establish a public-private research partnership with railroad carriers, locomotive manufacturers, equipment suppliers and the Association of American Railroads to develop railroad efficiency measures to increase fuel economy, reduce emissions, and lower costs. \$15 million is authorized for FY 2006, \$20 million for FY 2007, and \$30 million for FY 2008 (\$65 million total).

Aviation Fuel Conservation

Section 753 directs the Federal Aviation Administration and EPA to initiate a study by October 7, 2005 to investigate the impact of aircraft emissions on air quality in non-attainment areas, ways to promote fuel conservation measures for aviation, and opportunities to reduce air traffic inefficiencies. A report must be submitted to Congress within a year.

Diesel Fueled Vehicles

Section 754 directs DOE to step up efforts to improve diesel technologies in order to meet Tier 2 emission standards and the heavy-duty emissions standards by 2010, and to develop new, more efficient diesel engines.

Bicycle Program

Section 755 establishes the "Conserve by Bicycling Program" in DOT. The program creates up to ten pilot programs designed to encourage bicycle use in place of motor vehicles. At least 20 percent of the cost of each project must be provided by non-Federal sources. Furthermore, by August 8, 2007, the National Academy of Sciences must submit to Congress a report on the feasibility of converting motor vehicle trips to bicycle trips and on the pilot programs. \$6.2 million is authorized to these programs, of which \$5.15 million is for pilot projects, \$300,000 is for program costs, and \$750,000 is for the study.

Engine Idling Reduction

Section 756 directs EPA to begin a review by November 6, 2005 on mobile source air emission models used under the Clean Air Act to determine if the models accurately reflect the emissions of long-duration idling of heavy-duty vehicles. If necessary, both the models and regulations are to be updated to ensure that the emission reductions are being achieved by idle reduction technology. The reviews must be completed and reported by February 4, 2006.

It also directs EPA, with DOT, by November 6, 2005 to establish a program through EPA's SmartWay Transport Partnership to support deployment of idle reduction and energy conservation technologies. 50 percent of all costs must be paid for by non-Federal sources.

\$19.5 million is authorized for FY 2006, \$30 million for FY 2007, and \$45 million for FY 2008 for heavy-duty vehicles (\$94.5 million total). \$10 million is authorized for FY 2006, \$15 million for FY 2007 and \$20 million for FY 2008 for locomotives (\$45 million total).

By February 4, 2006 EPA, with DOT, must complete and report on a study to analyze all locations at which heavy-duty vehicles stop for long-duration idling.

Ultra-Efficient Engine Technology for Aircraft

Section 758 directs DOE and NASA to partner to develop ultra-efficient engine technology for aircraft, with goals of at least a 10 percent fuel efficiency increase, a 70 percent reduction in NO_x air quality impacts, and exploring fuel cells and alternate fuels. \$50 million annually is authorized from FY 2006 – FY 2010 (\$250 million total).

CAFE Standards

Section 759 requires that dual-fuel vehicles, which can run either on gasoline or diesel or on an alternative fuel such as ethanol, be labeled as such by September 1, 2006 in order to be eligible for the Corporate Average Fuel Economy (CAFE) standards credit.

Section 771 authorizes \$3.5 million per year for FY 2006 – FY 2010 (\$17.5 million total) to the National Highway Traffic Safety Administration (NHTSA) to set and enforce CAFE standards.

Section 772 extends the CAFE standards credit for dual-fuel vehicles through 2010, and allows NHTSA to further extend it through 2014.

Section 773 directs NHTSA to study the feasibility and effects of significantly reducing fuel use for automobiles by model year 2014. The study must include examination of and recommendations for alternatives to CAFE standards, how automakers can contribute, the potential of fuel cell technology, and the effects such a reduction would have on gasoline supplies, the automobile industry, motor vehicle safety, and air quality. The report must be initiated by September 7, 2005 and concluded by August 8, 2006.

Section 774 directs EPA to update the adjustment factors used in reporting fuel economy testing (but not in CAFE compliance) to consider higher speed limits, faster acceleration rates, temperature variations, use of air conditioning, shorter city driving times, current fuels, and other fuel depleting features.

Energy-Efficiency Research and Development

Energy-efficiency R&D

Section 911 authorizes DOE energy-efficiency research, development, demonstration, and commercial application (RDD&CA) programs, with the objectives of increasing the energy efficiency of vehicles, buildings, and industrial processes; reducing U.S. demand for energy, especially foreign energy; reducing the cost of energy and making the economy more efficient and competitive; improving energy security; and reducing the environmental impact of energy-related activities. \$783 million is authorized for FY 2007, \$865 million for FY 2008, and \$952

million for FY 2009 for these programs (\$2.6 billion total). It also specifies sub-allocations for vehicles, solid-state lighting, electric vehicle battery use, and motors.

Section 912 directs DOE, with an industry alliance, to carry out a Next Generation Lighting Initiative on solid-state lighting RDD&CA, with periodic review by the National Academy of Sciences.

Section 913 directs the Office of Science and Technology Policy by November 6, 2005 to establish an interagency group under DOE and the Department of Commerce, and establish an advisory committee, to integrate federal, state, and private sector efforts to reduce building costs. The group is to submit an RDD&CA plan to Congress by August 8, 2006.

Section 914 directs DOE by December 6, 2005 to contract with the National Institute of Building Sciences to assess current voluntary consensus standards and rating systems for high performance buildings and recommend steps for further development. It also directs DOE to establish a grant and technical assistance program for such voluntary standards.

Section 915 directs DOE to establish an RDD&CA program for the secondary use of electric and hybrid vehicle batteries.

Section 916 authorizes the Energy Efficiency Science Initiative for competitive energy-efficiency research grants, and requires an annual report to Congress.

Section 917 directs DOE to establish an advisory committee and to make grants to establish a network of Advanced Energy Efficiency Technology Transfer Centers, which are to encourage demonstration and commercial application of methods and technologies that promote energy efficiency.

Distributed Energy and Electric Energy Systems R&D

Section 921 authorizes distributed energy and electric energy systems RDD&CA. \$240 million is authorized for FY 2007, \$255 million for FY 2008, and \$273 million for FY 2009 (\$768 million total).

Section 922 directs DOE to conduct RDD&CA to improve the energy efficiency of high power density facilities such as data centers, server farms, and telecommunications facilities.

Section 923 directs DOE to make competitive grants to consortia for the development of micro-generation technology, including residential combined heat and power.

Section 924 authorizes DOE to provide financial assistance to consortia for demonstrations of distributed energy technologies in commercial applications. It also directs DOE to establish an RDD&CA program on small scale portable power devices.

Section 925 authorizes RDD&CA programs on electrical transmission and distribution systems, including transmission, load reduction, advanced metering and load management, superconductor, distributed power generation, and other technologies. Requires a 5-year plan by August 8, 2006, and a report two years later.

Electric Utility Energy-Efficiency

Advanced Technologies

Section 1223 directs the Federal Energy Regulatory Commission (FERC) to encourage deployment of advanced transmission technologies that increase the capacity, efficiency, or reliability of transmission facilities.

Section 1224 authorizes DOE to pay an incentive of 1.8 cents/kWh for a fuel cell, turbine, or hybrid power system or power storage system. Authorizes \$10 million per year for FY 2006 – FY 2012 (\$50 million total).

Economic Dispatch Study

Section 1234 directs DOE, with the states, to conduct a study on current electric utility economic dispatch procedures, possible revisions to improve the ability of nonutility generation to be included in economic dispatch, and the potential benefits to consumers. A report is to be submitted to Congress by November 6, 2005 and every year thereafter, including recommendations to Congress and the states.

Net Metering

Section 1251 requires states and nonregulated utilities by August 8, 2008 to consider adopting a standard requiring electric utilities to make net metering service, in which customers with on-site generation are billed only for the net electricity provided by the utility, available to all of their consumers. Each electric utility would also have to develop a plan to minimize dependence on a single fuel source, and develop a 10-year plan to increase the efficiency of its fossil fuel generation.

Smart Metering and Demand Response

Section 1252 requires states and nonregulated utilities by August 8, 2007 to consider adopting a standard requiring electric utilities to offer all of their customers a time-based rate schedule such as time-of-use pricing, critical peak pricing, real-time pricing, or peak load reduction credits. Electric utilities would also have to provide time-based meters and communications devices to their customers.

DOE is responsible for educating consumers on advanced metering, funding pilot projects, addressing barriers to demand response, and reporting to Congress by February 4, 2006 on the benefits of demand response and on recommendations for specific levels.

States the policy of the United States is to encourage demand response and to encourage states to coordinate energy policies on a regional basis to provide demand response services. DOE is to provide technical assistance to states and regional organizations, and FERC is to report to Congress annually on demand response resources, programs, actions, and barriers.

Cogeneration Purchase and Sale Requirements

Section 1253 ends a requirement that utilities purchase power from cogeneration and renewable electricity facilities when those facilities have fair access to wholesale markets for capacity and

electricity. It also ends a requirement that utilities provide such facilities with electricity when competing retail suppliers can serve those facilities.

Interconnection Standards

Section 1254 requires states and nonregulated utilities by August 8, 2007 to consider adopting a standard requiring electric utilities to provide interconnection service to all their consumers, under which a consumer's on-site generating facility is connected to the utility's local distribution facilities.

Economic Dispatch Regional Boards

Section 1298 directs FERC to convene regional boards to study the issue of security constrained economic dispatch for different market regions. FERC is to report to Congress by August 8, 2006 on the boards' recommendations.

Energy-Efficiency Tax Incentives

Commercial Buildings

Section 1331 creates a tax deduction for new and renovated commercial buildings designed to use at least 50 percent less energy than mandated in the ASHRAE Standard 90.1-2001. The amount of the deduction is up to \$1.80 per square foot of building space; a smaller deduction is available for each of three building systems—the building envelope, HVAC and hot water, or lighting system—that meets comparable targets to be set by the IRS. Certification with inspection and testing is required. For government-owned buildings, the designer may take the credit. The credit will be available for buildings “placed in service” starting January 1, 2006 and will expire on December 31, 2007.

New Homes

Section 1332 creates a tax credit for the builders of new energy-efficient homes. The credit is equal to \$2,000 for homes that use at least 50 percent less energy than mandated in the 2004 IECC code (with at least 1/5 of the improvement due to the building “envelope”), and \$1,000 for manufactured homes either that use at least 30 percent less energy than mandated in the 2004 IECC, or that meet the requirements to be an Energy Star Labeled Home. Certification is required. The credit will be available for homes “placed in service” starting on January 1, 2006 and will expire on December 31, 2007.

Residential Energy Property

Section 1333 creates a tax credit for homeowners who improve the energy efficiency of their homes. The credit has an overall lifetime cap of \$500 per taxpayer. It includes the purchase and installation of:

- Exterior windows (including skylights): 10 percent of the cost, up to \$200.
- Insulation, exterior doors, or pigmented metal roofs: 10 percent of the total cost, up to \$500. Duct sealing and weather stripping or foam sealants may qualify for the credit, depending on the IRS rules.
- Central air conditioner, heat pump, or water heater: up to \$300 towards the full purchase price.
- Furnace or boiler: up to \$150 towards the full purchase price, and/or \$50 for an efficient air circulating fan.

The insulation, windows, and doors must meet the requirements of the IECC model building energy code. The heating and cooling equipment must meet stringent efficiency requirements. The credit will be available for improvements “placed in service” starting on January 1, 2006 and will expire on December 31, 2007.

Appliances

Section 1334 creates a tax credit for manufacturers of energy-efficient appliances. The credit is \$100 for clothes washers; between \$75 and \$175 for refrigerators, depending on their efficiency; and up to \$100 for dishwashers, depending on forthcoming Energy Star criteria. It only applies to increased production of eligible appliances over a three-year rolling baseline. There is an overall lifetime cap of \$75 million per manufacturer, including a \$20 million cap on the least efficient eligible refrigerators. The credit will be available for appliances produced starting on January 1, 2006 and will expire on December 31, 2007.

Residential Solar Equipment and Fuel Cells

Section 1335 creates a tax credit for individuals who purchase solar photovoltaic cells, solar water heaters, and fuel cells to provide electricity or hot water for their homes. The credit is equal to 30 percent of the cost of the equipment, up to \$2,000 each for photovoltaic cells and solar water heaters, and \$500 for each half kilowatt of capacity of fuel cell property. Certain efficiency requirements apply. The credit will be available for equipment “placed in service” starting on January 1, 2006 and will expire on December 31, 2007.

Business Solar Equipment, Fuel Cells, and Microturbines

Section 1336 creates a tax credit for businesses that install energy-efficient fuel cells and stationary microturbine power plants. The credit for fuel cells is 30 percent of the cost, up to \$500 per half kilowatt of capacity (like the residential credit). The credit for microturbines is 10 percent of the cost, up to \$200 per kilowatt of capacity, with a limit of 2000 kW. Certain efficiency requirements apply. The credit will be available for equipment “placed in service” starting on January 1, 2006 and will expire on December 31, 2007.

Section 1337 modifies a tax credit for businesses that install solar equipment. The credit will be for 30 percent of the cost, and will apply to hybrid solar lighting systems, as well as solar electricity, heating, cooling, and water heating systems. The modifications will apply for equipment “placed in service” from January 1, 2006 through December 31, 2007.

Alternative Motor Vehicles

Section 1341 creates tax credits for purchasers of hybrid, diesel, alternative fuel, and fuel cell motor vehicles.

The credit for new hybrid and advanced lean burn diesel cars and light trucks ranges from \$250-\$3,400, based on fuel economy and lifetime fuel savings compared to typical vehicles of similar weight. For new hybrid vehicles weighing more than 8,500 pounds, the credit will equal 20-40 percent of the additional cost of the hybrid vehicle compared to a comparable non-hybrid vehicle, with a cap of \$7,500-\$30,000 depending on the weight of the vehicle. Certain emissions requirements apply.

The credits for hybrid and diesel vehicles will be available for vehicles “placed in service” starting on January 1, 2006. The credit will be phased out separately for vehicles produced by each manufacturer. After a company has sold 60,000 eligible vehicles, the credit for that company’s vehicles will be gradually reduced over the course of another year. The credit also will expire on December 31, 2009 for heavy-duty vehicles and December 31, 2010 for light-duty vehicles.

The credit for a new alternative fuel motor vehicle credit is equal to 50-80 percent of the additional cost of the alternative fuel vehicle compared to a traditionally-fueled vehicle, depending on the vehicle’s air emissions, with a cap of between \$5,000 and \$40,000, depending on the vehicle’s weight. The credit will be available for vehicles “placed in service” starting on January 1, 2006 and will expire on December 31, 2010.

The credit for a new fuel cell motor vehicle ranges from \$4,000-\$12,000 for cars and light trucks, depending on the year and fuel efficiency of the vehicle. The credit for vehicles over 8,500 pounds is \$10,000-\$44,000. The credit will be available for vehicles “placed in service” starting on January 1, 2006 and will expire on December 31, 2014.

Innovative Technology Incentives

Innovative Technology Incentives

Sections 1701-1704 authorize DOE to make loan guarantees for up to 80 percent of the cost of projects that avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases and that employ new or improved technologies compared to existing commercial technologies. Eligible projects include efficient end-use energy technologies, production facilities for fuel efficient vehicles, efficient electric system technologies, and fuel cell technology, among others. Authorizes such sums as are necessary for these loan guarantees.

Studies

Site and Source Energy Measurement

Section 1802 directs DOE to contract with the National Academy of Sciences (NAS) for a study to be completed by August 8, 2006 on whether energy use should be measured for energy-efficiency standards at the site of use or through the fuel cycle beginning at the source of energy production.

Telecommuting

Section 1803 directs DOE, with FERC, the Office of Personnel Management, GSA, and the Department of Commerce, to study the energy conservation implications of widespread telecommuting by federal employees, along with regulatory barriers and other benefits. A report to the president and to Congress is required by February 8, 2006.

Vehicle Oil Saving Technologies

Section 1805 directs DOE and EPA to study oil bypass filtration technology and its use in federal fleets.

Section 1806 directs DOE to study total integrated thermal systems and their use in federal fleets.

Distributed Generation

Section 1817 requires DOE, with FERC, to study cogeneration and distributed generation, and, after public comment, to report to the president and Congress by February 8, 2007.

Natural Gas Shortage

Section 1818 requires DOE by February 4, 2006 to report to Congress with recommendations for achieving a balance between natural gas supply and demand, with recommendations including encouraging or requiring the use of energy conservation or demand side management practices.

Vehicle Miles Traveled

Section 1827 requires DOE to have NAS study, and by August 8, 2007 report to DOE and Congress on, the impact of land development patterns on vehicle miles traveled and on petroleum use, and the potential benefits of information programs and transportation policies and strategies.

Congressional Buildings

Section 1829 requires the Architect of the Capitol to study, and by February 4, 2006 report to Congress on, how to make the Capitol complex more energy efficient, and the feasibility of installing a garden and distributed generation on the Dirksen Senate Office Building Rooftop. Authorizes \$2 million a year for FY 2006 – FY 2010 (\$10 million total).

Economic Dispatch

Section 1832 directs DOE to do the same study as in Sec. 1234.

For more information please contact Alliance policy staff at (202)857-0666 or policyinfo@ase.org.

The Alliance to Save Energy is a coalition of prominent business, government, environmental and consumer leaders who promote the efficient use of energy worldwide to benefit consumers, the environment, the economy, and national security.

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