



Federal Energy Independence and Security Act of 2007 Summary of Key Provisions

TITLE I: Energy Security Through Improved Vehicle Fuel Economy

Subtitle A—Increased Corporate Average Fuel Economy (CAFÉ) Standards

New CAFÉ standards begin with the 2011 model year vehicles. The average combined fuel economy of automobiles will be at least 35 mpg by 2020, with separate standards applying to passenger and non-passenger automobiles. The standard will be phased in, starting with the 2011 model year, so that the CAFÉ increases each year until the average fuel economy of 35 mpg is reached by 2020. From 2021 through 2030, the maximum feasible average fuel economy standard will apply for each fleet and model year. Additionally, fuel economy standards are required to be developed for commercial medium- and heavy-duty highway vehicle and work trucks. The maximum fuel economy increases for alternative-fueled automobiles will be phased out by 2020.

Subtitle B—Improved Vehicle Technology

This subtitle establishes a cost-sharing grant program for governments and other entities for projects that encourage the use of plug-in electric-drive vehicles or other emerging electric vehicle technologies. A program of loan guarantees for advanced battery development and production facilities is included. This subtitle also provides an incentives program for manufacturing advanced technology vehicles.

Subtitle C—Federal Vehicle Fleets

This subtitle requires that Federal agencies acquiring light-duty motor vehicles or medium-duty passenger vehicles must acquire a low greenhouse gas (GHG)–emitting vehicle. Starting in 2010, Federal agencies are required to reduce petroleum consumption and increase alternative fuel consumption each year. Starting in 2015, a minimum reduction of 20% in annual petroleum consumption from 2005 values is required, along with a minimum increase in alternative fuel consumption of 10%.

TITLE II: Energy Security Through Increased Production of Biofuels

Subtitle A—Renewable Fuel Standard (RFS)

The RFS requires minimum annual levels of renewable fuel in U.S. transportation fuel. This increases the standard for 2008 from 5.4 billion gallons to 9.0 billion gallons, with 36 billion gallons under the new RFS by 2022. Starting in 2016, all of the increase in the RFS target, above the previous RFS target, must be met with advanced biofuels defined as cellulosic ethanol and other biofuels derived from feedstock other than cornstarch. Renewable fuels produced at new biorefineries must reduce GHG life cycle emissions by 20% relative to gasoline or diesel fuel.

Subtitle B—Biofuels Research and Development

This subtitle provides for grants for biofuel production research and development in States with low rates of ethanol production. Research and development programs will be established for increasing the energy efficiency of biorefineries. A number of studies are required, including studies on the optimization of flexible-fueled vehicles using E85 fuel, engine durability and performance with the use of biodiesel, biogas use in natural gas vehicles, and algal biomass. This subtitle also establishes a biofuels and biorefinery information center for providing information related to renewable fuels, as well as bioenergy research centers. Grants will be provided to a limited number of entities for research on cellulosic ethanol and biofuels and to university-based research and development of renewable energy technologies.

Subtitle C—Biofuels Infrastructure

This subtitle requires an annual report to be produced on the market penetration of flexible-fueled vehicles within specific geographic regions along with a report on the feasibility of requiring retailers to install E85 dispensers in regions with a flexible-fuel vehicle penetration rate of 15% or more of motor vehicles. A study of the feasibility of construction of pipelines dedicated to the transportation of ethanol is required. The subtitle also provides for grants for installing, replacing, or converting fuel storage and dispensing infrastructure to be used exclusively for renewable-fuel blends. It provides for a study of renewable fuels for railroads and other modes of transportation. This subtitle requires that all Federal fleet fueling centers have at least one renewable-fuel pump installed by 2010. It also establishes standard specification for biodiesel and for research and development related to biofuels distribution and infrastructure.

Subtitle D—Environmental Safeguards

This subtitle changes the requirements for fuel or fuel additive waiver requests from the U.S. Environmental Protection Agency (EPA). Under this subtitle, EPA must act on each request within 270 days.

TITLE III: Energy Savings Through Improved Standards for Appliances and Lighting

Subtitle A—Appliance Energy Efficiency

This subtitle contains new or updated standards for external power supplies (the small black boxes attached to the power cords of many electronic products), residential boilers, clothes washers, dishwashers, dehumidifiers, walk-in coolers and freezers, and electric motors. Additionally, the U.S. Department of Energy (DOE) must issue a new standard for the electricity usage of furnace fans and incorporate energy use from standby mode and off mode into future standards for covered appliances. Finally, the subtitle allows regional standards to be set for heating and cooling equipment. Effective dates range from July 2008 (external power supplies) to September 2012 (residential boilers).

Subtitle B—Lighting Energy Efficiency

This subtitle contains new or updated standards for incandescent reflector lamps, metal halide lamp fixtures (commonly used in high-ceiling commercial and industrial applications), and general service lamps (light bulbs). Among these standards, the biggest energy saver is for

common light bulbs, requiring them to use about 25%–30% less energy than today’s most common incandescent bulbs by 2012–2014 (phasing in over several years) and at least 60% less energy by 2020.

TITLE IV: Energy Savings in Buildings and Industry

Subtitle A—Residential Building Efficiency

This subtitle increases the funding authorization for DOE’s Weatherization Program, providing more than \$5 billion over 5 years; requires the Secretary of Energy to submit a report to Congress on a study regarding the energy rebate programs established under the Energy Policy Act of 2005 (sections 124 and 206c); and requires DOE to establish energy efficiency standards for manufactured housing. Manufacturers who violate the regulations will be liable for a civil penalty not to exceed 1% of the retail price of the manufactured housing.

Subtitle B—High-Performance Commercial Buildings

This subtitle encourages the development of high-performance green commercial buildings and zero-net-energy commercial buildings. A further goal is to retrofit all pre-2025 buildings to zero-net-energy use by 2050. Public outreach is included in the Act to support the development of these commercial buildings.

Subtitle C—High-Performance Federal Buildings

This subtitle contains multiple components to achieve a 30% savings in energy consumption. Key provisions (1) reduce energy consumption in Federal buildings by 30% by 2015, based on 2005 energy levels; (2) require appointment of an energy manager responsible for implementing energy efficiency at each Federal facility; (3) require performance standards that reduce the use of fossil fuels in Federal facilities to zero by 2030, unless technically impractical; (4) require that large capital energy investments, including major replacements of installed equipment (such as heating and cooling systems), or renovation or expansion of existing space employ the most energy efficient designs, systems, equipment, and controls that are life cycle cost-effective; (5) starting in 2011, require all leases to be in buildings that have earned the ENERGY STAR label (with exceptions); (6) require Federal high-performance green building standards for all types of Federal facilities; and (7) changes buildings’ life cycle costs basis from 25 years to 40 years.

Subtitle D—Industrial Energy Efficiency

This subtitle (1) amends Title III of the Energy Policy and Conservation Act (42 USC §§ 6291 et seq.) to include a section on industrial energy efficiency that focuses on recoverable waste energy; (2) develops partnerships that result in application of new technologies for energy-intensive industries; and (3) establishes a voluntary national information program for data centers to produce specifications, measurements, best practices, and benchmarks to support energy efficiency at data centers.

Subtitle E—Healthy High Performance Schools

This subtitle provides grants for healthy school environments, including technical assistance for EPA programs to address environmental issues, identification of school building environmental problems, and development of standards for building design, construction, and renovations. In

addition, it sets up voluntary guidelines to account for pollution exposures, transportation availability, and efficient use of energy. The subtitle also requires that children's health issues are included in the outreach activities conducted to support high-performance buildings, sets up voluntary guidelines to include schools in the findings and relevant tools of the high-performance building program, and provides technical assistance for siting, design, management, and operation of school facilities.

Subtitle F—Institutional Entities

This subtitle focuses on grants and loans to improve energy sustainability and efficiency in institutions. The institutions targeted are public school districts, colleges, local government, and municipal utilities. Technical assistance grants will be made available to help institutions identify, evaluate, design, and implement sustainable energy infrastructure projects. Projects could be combined heat and power, district energy systems, use of renewable energy sources, or implementation of highly efficient technologies.

Subtitle G—Public and Assisted Housing

This subtitle applies the international energy conservation code (IECC) to public and assisted housing. It replaces wording requiring 1992 building standards with new building requirements using the 2006 IECC. This law also will require that all renovations meet the 2006 IECC.

Subtitle H—General Provisions

This subtitle requires DOE and the General Services Administration (GSA) to establish guidelines for high-performance building demonstration projects and requires DOE and GSA to develop and recommend a high-performance green building research plan. The goals of the plan are to identify research needs, promote development of high-performance green buildings, and test new technologies for these buildings. The subtitle also requires EPA to establish a grant program for local governments for green building demonstration projects and requires DOE to establish a Green Building Advisory Committee composed of representatives of agencies and of State and local government green building programs, independent green building experts, association and council representatives, security advisors, and public transportation and environmental health experts. Finally, the subtitle requires DOE to create an energy efficiency finance advisory committee to provide recommendations to assist the energy community in lowering costs and increasing investments in energy efficiency technologies.

TITLE V: Energy Savings in Government and Public Institutions

Subtitle A—United States, Capitol Complex

This subtitle describes actions to make the U.S. Capitol Complex more energy efficient.

Subtitle B—Energy Savings Performance Contracting

This subtitle expands the use of Energy Savings Performance Contracts (ESPC) to improve energy efficiency within Federal agencies. An ESPC is an arrangement between the Federal government and an energy services company (ESCO) to improve the energy efficiency of a Federal facility. Instead of the Federal agency raising capital to fund efficiency improvements, the ESCO both funds the design and installation of an energy savings project and monitors the

energy savings; then it receives a percentage of the energy savings resulting from the improvements. This subtitle also extends the definition of energy savings to include several additional activities and expands the type of facilities eligible for ESPCs to include vehicles, devices, and equipment, as well as buildings. The subtitle also creates a program to train Federal contracting officers to recognize potential ESPC opportunities.

Subtitle C—Energy Efficiency in Federal Agencies

This subtitle requires a number of energy efficiency actions by Federal agencies, including, but not limited to, a mandate that 30% of the hot water demand in new or renovated Federal buildings be met with solar hot water equipment (provided it is life cycle cost-effective) and a requirement that Federal procurements focus on use of ENERGY STAR and Federal Energy Management Program (FEMP)–designated products. It also calls for closer monitoring of energy efficiency and potential energy savings in Federal agencies by requiring that agencies submit annual reports describing the status of initiatives to improve energy efficiency and reduce energy costs and GHG emissions. Section 529 directs the Federal Energy Regulatory Commission (FERC) to perform a national assessment of demand response, including an estimate of nationwide demand response for a 10-year time horizon. FERC is also required to prepare a National Action Plan on demand response, with cooperation from industry.

Subtitle D—Energy Efficiency in Public Institutions

This subtitle increases annual funding authorizations for DOE’s State energy programs from \$100 million to \$125 million (fiscal years 2007 through 2012). As part of this subtitle, electric utilities are required to (1) integrate energy efficiency resources into utility, State, and regional plans; and (2) adopt policies establishing cost-effective energy efficiency as a priority resource. Natural gas utilities are required to (1) integrate energy efficiency resources into the plans and planning processes of the natural gas utility, and (2) adopt policies that establish energy efficiency as a priority resource in the plans and planning processes of the natural gas utility. Both sets of utilities are directed to modify their rates to align incentives to encourage delivery of cost-effective energy efficiency. The rate modifications of electric utilities must also promote investments in energy efficiency. This subtitle identifies specific electric utility and natural gas utility policy options that State regulatory authorities and nonregulated utilities must consider when planning for achievement of these rate modification objectives.

Subtitle E—Energy Efficiency and Conservation Block Grants

This subtitle directs the Secretary of Energy to establish an energy efficiency and conservation block grant program, under which the Secretary will provide grants to eligible entities. Total grants are authorized at \$2 billion annually over 5 years, with additional funding authorized to cover program administrative costs. The purpose of the program is to help local and regional communities reduce fossil fuel emissions, reduce total energy use, and improve energy efficiency in the transportation, building, and other sectors. Grant money is to be allocated as follows: 68% to eligible units of local government; 28% to States, 2% to Indian tribes, and 2% for competitive grants.