

## Senate Comprehensive Energy Bill

Both the House and Senate energy committees are currently in the process of developing comprehensive energy bills. The Senate Energy and Natural Resources Committee released the Energy Policy Modernization Act of 2015 on July 22<sup>nd</sup>. The bill represents the comprehensive energy bill that had been under development by the Committee and includes four titles – Efficiency, Infrastructure, Supply and Accountability. The Efficiency title, Title I, contains 26 provisions covering three main areas – buildings, appliances and manufacturing. The Committee commenced the markup of the bill on July 28<sup>th</sup> and completed the markup on July 30<sup>th</sup>, when the bill was favorably reported by a vote of 18-4.

### Provisions

The following provisions were included under the Efficiency title of the Energy Policy Modernization Act of 2015.

#### **Section 1001 – Greater energy efficiency in building codes**

Amends Section 303 of the Energy Conservation and Production Act (ECPA) to add certain definitions, including one that explicitly states the International Energy Conservation Code’s role in the code development process. Amends Section 304 of ECPA to require that the Secretary of Energy encourage and support the adoption of building energy codes by States, local governments, or Indian tribes that meet or exceed model building energy codes. The amendment also improves compliance measures with building codes by establishing a better certification system and establishing a concrete standard for full compliance achievement. Amends Section 307 of ECPA to require that the Secretary of Energy support the updating of model building energy codes. The amended language requires the Secretary to account for the modernizing energy infrastructure in buildings such as efficiency gains enabled by appliance standards, renewables, or SmartGrid technologies when developing code targets.

#### **Section 1002 – Budget-neutral demonstration program for energy and water conservation improvements at multi-family residential units**

Directs the Secretary of Housing and Urban Development to conduct a pilot project that demonstrates the use of budget-neutral, performance-based agreements for energy or water conservation improvements in residential units of multifamily buildings. Each program agreement will include a pay-for-success provision contingent on documented utility savings and will strive for the greatest feasible geographic diversity to include all types of regional environments.

#### **Section 1003 – Coordination of energy retrofitting assistance for schools**

Directs the Department of Energy’s (DOE) Office of Energy Efficiency and Renewable Energy (EERE) to coordinate and disseminate information on existing Federal programs that may be used to help initiate, develop, and finance energy efficiency, renewable energy, and energy retrofitting projects for schools. It also establishes collaboration across federal departments and between local, state, and federal bodies to streamline communication about the resources and technical assistance available for energy efficiency, renewable energy, and retrofitting projects.

### **Section 1004 – Energy efficiency retrofit pilot program**

Directs the Secretary of Energy to establish a pilot program to award grants for the purpose of retrofitting nonprofit buildings with energy-efficiency improvements. Grants will be awarded on performance-based criteria such as energy savings achieved and cost effectiveness of the improvement.

### **Section 1005 – Utility energy service contracts**

Amends Section 546 of the National Energy Conservation Policy Act (NECPA) to extend the maximum potential contract period of utility energy service contracts from 10 to 25 years. The amendment also mandates that energy service contracts under any Federal agency must include requirements for measurement, verification, and performance assurance.

### **Section 1006 – Use of energy and water efficiency measures in Federal buildings**

Amends contracting authority and reporting in NECPA to encourage Federal agencies to enter into energy savings performance contracts and utility energy service contracts to implement energy and water conservation measures at Federal buildings. The provision allows Federal agencies to sell or transfer energy savings and apply the proceeds of such transactions to fund a contract.

### **Section 1007 – Building training and assessment centers**

Directs the Secretary of Energy to provide grants to institutions of higher education and Tribal Colleges or Universities to establish building training and assessment centers. The centers will identify opportunities for optimizing energy efficiency and environmental performance in buildings; promote the application of emerging technologies; train engineers, architects, building scientists, and other officials in energy-efficient design and operation; assist universities in training building technicians; and promote research and development for the use of alternative energy sources and distributed generation in campus buildings.

### **Section 1008 – Career skills training**

Directs the Secretary of Energy to provide grants to eligible non-profit entities for up to half the cost of career skills training programs that lead to students receiving industry-related certification to install energy efficient building technologies.

### **Section 1009 – Energy-efficient and energy-saving information technologies**

Amends Section 543 of NECPA by adding a section that directs the Director of the Office of Management and Budget (OMB) to collaborate with each Federal agency to develop an implementation strategy for the maintenance, purchase, and use of energy-efficient and energy-saving information technologies. The implementation strategy includes best-practices and measurement and verification techniques.

### Section 1010 – Availability of funds for design updates

Amends Section 3307 of Title 40 of the U.S. Code to allow the Administrator of General Services to use appropriated funds to update the design of a building for which the design has been substantially completed, but on which construction has not begun, to meet applicable Federal building energy efficiency standards. Funds used cannot exceed 125 percent of the estimated energy or cost savings updates as determined by a life cycle cost analysis.

### Section 1011 – Energy efficient data centers

Amends Section 453 of the Energy Independence and Security Act (EISA) of 2007 to update the Voluntary National Information Program. Requires the development of a metric for data center energy efficiency, and the Secretary of Energy and Director of OMB to maintain a data center energy practitioner program and open data initiative for Federal data center energy usage. The open data initiative will aim to make data accessible in a way that encourages data center innovation, optimization, and consolidation. Additionally, the Secretary of Energy is required to make efforts to harmonize global specifications and metrics for data center energy and water efficiency with the help of key stakeholders. A report must also be submitted by the Secretary in which analyses and evaluations are conducted concerning the impact of information technologies and cloud computing on the public and private sectors and the impact of cloud platforms, mobile devices, social media, and big data on data center energy usage.

### Section 1012 – Weatherization Assistance Program

Amends Section 422 of ECPA to reauthorize the Weatherization Assistance Program. Amends Section 414 of ECPA to require the Secretary of Energy to provide competitive grants for eligible multi-state housing and energy nonprofit organizations with accredited contractors to conduct housing energy retrofits for low-income persons. The provision not only aims to expand the number of low-income, single-family and multi-family homes that receive energy retrofits, but it also endeavors to promote innovation and new models for retrofitting low-income homes.

### Section 1013 – Reauthorization of State Energy Program

Amends Section 365(f) of Energy Policy Conservation Act (EPCA) to reauthorize the State Energy Program, which is a program run by the Department of Energy that provides funding and technical assistance to state and territory energy offices to help them advance their clean energy economy while contributing to national energy goals.

### Section 1014 – Smart building acceleration

Directs the Secretary of Energy to establish the ‘Federal Smart Building Program’ to demonstrate the costs and benefits of implementing smart building technology. The program evaluates which advanced building technologies are the most cost effective, show the most promise for increasing building energy savings, increase service performance to building occupants, reduce environmental impacts, and establish cybersecurity. The provision also directs the Secretary, along with major private sector property owners, to develop smart building accelerators to demonstrate innovative policies for accelerating the transition to smart buildings as part of the Better Building Challenge.

### **Section 1015 – Repeal of fossil phase-out**

Amends Section 305(a)(3) of ECPA to remove the requirement to phase out fossil fuel use in Federal buildings by 2030.

### **Section 1016 – Federal building energy efficiency performance standards**

Amends Section 303 of ECPA to include major renovations. Amends Section 305(a)(3) of ECPA to require the Secretary of Energy to establish revised Federal building energy efficiency performance standards. Revised standards require that new Federal buildings or alterations to Federal buildings meet or exceed the most recent versions of the IECC or ASHRAE standards or the local/state standards if more stringent. Along with implementing other sustainable design technologies, water conservation technologies will also be applied and no less than 30 percent of the hot water demand for each new Federal building or renovated building shall be met through the installation of solar hot water heaters, if life cycle cost effective.

### **Section 1017 – Codification of Executive Order**

Directs the head of each Federal agency to reduce their building energy intensity by 2.5 percent per year for fiscal years 2016 through 2025.

### **Section 1018 – Certification for green buildings**

Amends Section 305 of ECPA to direct the Secretary of Energy to determine which certification systems for green commercial and residential buildings are the most likely to encourage a comprehensive and environmentally sound approach to the certification of green buildings. Performance measures shall be used in lieu of prescriptive measures whenever possible to allow for flexibility and environmental and health criteria based on risk assessment methodology shall be evaluated when determining a certification system. The Secretary of Energy is also required to conduct periodic review of Federal building energy standards every five years to ensure that energy efficiency technologies are kept reasonably updated.

### **Section 1019 – High performance green federal buildings**

Amends Section 436(h) of EISA 2007 to require the Federal Director to identify and provide to the Secretary of Energy a list of certification systems most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings. Any developer or administrator of a rating or certification system can be included in the review. The provision also adds that for all credits addressing grown, harvested, or mined materials, the system does not discriminate against the use of domestic products that have obtained certifications of responsible sourcing.

### **Section 1101 – Extended product system rebate program**

Directs the Secretary of Energy to establish a rebate program to encourage the replacement of energy inefficient electric motors with qualified extended product systems, or product systems that include an electric motor, an electronic control, and technology that reduces the input energy required to operate the system by no less than 5 percent.

### **Section 1102 – Energy efficient transformer rebate program**

Directs the Secretary of Energy to establish a rebate program to encourage the replacement of energy inefficient transformers with transformers that meet or exceed the applicable energy conservation standards listed in the respective Code of Federal Regulations.

### **Section 1103 – Standards for certain furnaces**

Amends Section 325(f)(4) of EPCA to add a process to determine if a nationwide requirement for a condensing furnace efficiency standard is technically feasible and economically justified. The advisor group conducting evaluations is organized by the Secretary of Energy and includes a diverse group of interested stakeholders, manufacturers, distributors, home builders, energy efficiency advocates, natural gas and electric utilities, and others to ensure a broad range of opinions and perspectives in determining if a nationwide standard is practical. The group is to analyze current market trends regarding the transition of sales from non-condensing to condensing furnaces, the projected net loss in the industry of the value of equipment manufactured after the adoption of a standard, the projected consumer payback period and life cycle cost savings with the adoption of a standard, and a determination of whether the standard is economically justified.

### **Section 1104 – Third-party certification under Energy Star program**

Amends Section 324A of EPCA by directing the Administrator to revise the certification requirements for Energy Star program partners that have complied with all program requirements for at least 18 months. An exemption from third-party certification will terminate if the program partner is found to have violated program requirements with at least two separate models for two years or more.

### **Section 1201 – Manufacturing energy efficiency**

Amends Section 452 of EISA 2007 to add the ‘Future of Industry Program’ and ‘Sustainable Manufacturing Initiative.’ These programs will streamline Federal manufacturing efforts by directing Industrial Assessment Centers to coordinate with other Federal manufacturing programs, National Laboratories, and energy service and technology providers, and directing DOE’s Office of EERE to provide onsite technical assessments to manufacturers seeking efficiency opportunities. Through these programs the Department of Energy aims to reform its industrial efficiency programs, accelerate the deployment of technologies and practices that will increase industrial productivity, increase manufacturing efficiency, stimulate domestic economic growth, and strengthen partnerships between Federal and State government agencies and the private and academic sectors.

### **Section 1202 – Leveraging existing Federal agency programs to assist small and medium manufacturers**

Directs the Secretary of Energy to expand the scope of technologies covered by the Industrial Assessment Centers of the Department to include smart manufacturing technologies and practices and equip the Centers’ Directors with the tools and training to provide technical assistance in smart manufacturing to manufacturers, including energy efficiency improvements, waste minimization, pollution prevention, and productivity improvement.



## Section 1203 – Leveraging smart manufacturing infrastructure at National Laboratories

Directs the Secretary of Energy to study and then implement ways for small and medium manufacturers to access the high-performance computing facilities at National Laboratories.

### Amendments

Over the period of July 28<sup>th</sup> – 30<sup>th</sup>, the Senate Energy and Natural Resources Committee addressed the 95 amendments that were filed for the Energy Policy Modernization Act of 2015. The majority of these amendments were withdrawn by their respective sponsors, but several of them did get approved and added to the bill. The amendments highlighted below are relevant to the energy efficiency title of the bill.

#### Portman 1

To add a provision relating to voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products. As it relates to the verification of compliance with energy conservation standards and Energy Star specifications, the Secretary of Energy and the Administrator of the Environmental Protection Agency shall rely on testing conducted by voluntary verification programs that meet eligible criteria.

#### Gardner 1

Amends the Energy Policy Modernization Act of 2015 language by modifying the definition of a “Federal building” to include that it, “does not include a dam, reservoir, or hydropower facility owned or operated by a Federal agency.”

#### Warren 1

To require the Secretary of Energy to conduct a study and issue a report that quantifies the energy savings benefits of operational efficiency programs and services for commercial, institutional, industrial, and government entities. The report is required to include potential methodologies or protocols for utilities, utility regulators and Federal agencies to evaluate, measure and verify energy savings from operational efficiency programs and services.

#### Flake 1

To require the evaluation of potentially duplicative green building programs within the Department of Energy. This would require the submittal of a report to Congress which outlines the purpose, annual expenditures, intended market and number of assigned employees for applicable programs and services. DOE is also required to submit a report that includes any recommendations for programs or services that should be eliminated or consolidated.

#### King 1

This amendment revises a provision in the Energy Policy Modernization Act of 2015 regarding studies of net metering. It outlines the necessary components of a study and requires DOE to complete one.