

H.R. 2177 – the Energy Savings and Industrial Competitiveness Act of 2015

Representatives David McKinley (R-W.V.) and Peter Welch (D-Vt.) introduced H.R. 2177, the Energy Savings and Industrial Competitiveness Act of 2015, on April 30, 2015. The bill, along with its companion bill, S. 720 authored by Senators Rob Portman (R-Ohio) and Jeanne Shaheen (D-N.H.), seeks to improve energy efficiency in the United States in the areas of buildings, the industrial sector and the federal government. The current iteration of the bill is very similar to H.R. 1616, which was introduced in 2013.

[Summary of H.R. 2177](#)

Title I - Buildings

Subtitle A – Building Energy Codes

Section 101: Greater energy efficiency in building codes

This section amends the Energy Conservation and Production Act.

It directs the Department of Energy (DOE) to support the updating of model building energy codes. DOE is to work with relevant and interested parties to establish one or more aggregate energy savings targets, and may establish different targets for residential and commercial buildings. Targets will be set at the maximum level of energy efficiency that is technologically feasible and life-cycle cost-effective, and should be developed with economic considerations and future technological advances taken into account. The baseline for setting these codes will be the 2009 IECC for residential buildings and ASHRAE Standard 90.1-2010 for commercial buildings.

DOE will provide technical assistance to model building energy code-setting and standard development organizations, and will make its energy savings calculation methodology publicly available.

DOE will make a final determination within 15 months of any code revisions on whether the revisions will improve energy efficiency sufficiently to meet the targets. If, in a preliminary determination made within 90 days of revisions, DOE determines that the revision will not meet the target, DOE will provide proposed changes. The model building energy code or standard developer then will have an additional 270 days to accept or reject the proposed changes, after which DOE will make a final determination.

This section also directs DOE to encourage and support the adoption of building energy codes by states, Indian tribes, and local governments that meet or exceed model building energy codes. DOE will also support full compliance with existing state and local codes. Within two years of a model building energy code update, the state or Indian tribe will certify that the code will achieve target energy savings. Within ninety days of this certification, DOE will determine if the criteria are indeed met, and will validate the certification if they are.

Within three years of certification of a state or Indian tribe code, each state or Indian tribe must certify that the code has achieved full compliance or made significant progress. DOE will validate this achievement or progress within ninety days. If the code has not achieved full compliance or made significant progress within three years, the state or Indian tribe must submit a report to the DOE that contains a plan to achieve full compliance. The state or Indian tribe may also be eligible for federal support.

DOE will publish an annual report on the status of model building energy codes, levels of compliance with the codes, and past and projected economic costs and benefits associated with the building codes. DOE will also provide technical assistance, incentive funding, and additional funding, some of which may be used to train officials to implement and enforce building codes. DOE will also provide technical and financial support to develop stretch codes and advanced standards, resulting in buildings that achieve substantial energy savings and meet targets at least three to six years ahead of schedule.

DOE, in consultation with building science experts, will produce a report on potential code improvements to make buildings more adaptable for future technology improvements that would allow for zero-net-energy usage; code procedures that would incorporate measured lifetime performance; and legislative options, including incentives, for increasing energy savings.

This section authorizes \$200 million to be appropriated and to remain available until expended.

Subtitle B – Worker Training and Capacity Building

Section 111: Building training and assessment centers

DOE will provide grants to institutions of high learning to establish building training and assessment centers. These centers will identify opportunities for optimizing energy efficiency, promote R&D and application of emerging technologies, and train students and workers in the energy efficiency field. To the extent possible, these centers will be collocated with existing Industrial Assessment Centers. DOE will also coordinate with relevant parties to ensure that there is no duplication of effort.

Section 112: Career skills training

In connection with the previous section, this section outlines the criteria that a career skills training program must meet to be eligible for a grant.

This section authorizes \$10 million to remain available until expended.

Subtitle C – School Buildings

Section 121: Coordination of energy retrofitting assistance for schools

This provision would help schools invest in energy efficiency upgrades. The Department of Energy (DOE) would coordinate and simplify the scope of existing federal energy efficiency programs available to schools and provide guidance on financing options. It is estimated to reduce CO₂ emissions by 15.50 MMT and save \$2.21 billion by 2030. This section was originally introduced by Sens. Udall (D-Co.) and Collins (RMe.) as the Streamlining Energy Efficiency for Schools Act.

Subtitle D – Better Buildings

Section 131: Energy efficiency in Federal and other buildings

The General Services Administration (GSA) and DOE will develop model leasing provisions and best practices to better align the interests of building owners and tenants with regard to investments in cost-effective energy efficiency measures to encourage building owners and tenants to collaborate to invest in such measures. These model leasing provisions will be published and made available to State, local and municipal governments to manage owned and leased building space. This provision was signed into law as part of S. 535, the Energy Efficiency Improvement Act of 2015.

Section 132: Separate spaces with high-performance energy efficiency measures

Require DOE to complete a study on the feasibility of significantly improving energy efficiency in commercial buildings through the design and construction of separate spaces with high-performance energy efficiency measures and encouraging owners and tenants to implement high-performance energy efficiency in separate spaces. The section also calls for DOE to publish a notice in the Federal Register requesting public comments connected to high-performance energy efficiency measures. This provision was signed into law as part of S. 535, the Energy Efficiency Improvement Act of 2015.

Section 133: Tenant star program

The Environmental Protection Agency (EPA), along with DOE, shall develop a voluntary program, called Tenant Star, within the Energy Star program to promote energy efficiency in separate spaces leased by tenants or otherwise occupied within commercial buildings. This provision was signed into law as part of S. 535, the Energy Efficiency Improvement Act of 2015.

Subtitle E – Energy Information for Commercial Buildings

Section 141: Energy information for commercial buildings

This provision would build upon existing law by requiring federally leased buildings to benchmark and disclose their energy usage data. It also authorizes DOE to conduct a study on benchmarking methodologies and establishes a competitive grant program for utilities to make building energy use data available to building owners. It is estimated to reduce CO₂ emissions by 7.92 MMT and save \$0.77 billion by 2030. This provision is based on a benchmarking bill sponsored by Sen. Franken (D-Minn.). This provision was signed into law as part of S. 535, the Energy Efficiency Improvement Act of 2015.

Title II – Industrial Efficiency and Competitiveness

Subtitle A – Manufacturing Energy Efficiency

Section 201: Purposes

The purpose of this subtitle is to reform and clarify the industrial energy efficiency programs of DOE; to accelerate the development and deployment of emerging technologies that can contribute to industrial

energy efficiency; to stimulate economic growth through increased industrial productivity; and to strengthen partnerships between governmental agencies, universities, and the private sector.

Section 202: Future of Industry program

This section amends and clarifies the Energy Independence and Security Act of 2007, providing provisions for the future of the industry program of the DOE. It expands the definition, value, and capabilities of industrial research and assessment centers. The centers are directed to increase partnerships and coordination with the Manufacturing Extension Centers of the National Institute of Standards and Technology, energy service and technology providers, and DOE's Building Technologies Program and National Laboratories. The centers will identify opportunities for reducing greenhouse gas emissions and promote sustainability for small- and medium-sized manufacturers.

DOE is directed to provide funding for outreach and coordination activities by the industrial research and assessment centers, as well as 50% of associated internship programs under which students work to implement the recommendations of these centers. DOE is also directed to establish an advisory steering committee to provide recommendations on planning and implementation of the Advanced Manufacturing Office. The Small Business Administration will expedite consideration, to the greatest extent possible, of applications for loans under the Small Business Act to implement recommendations of the centers.

Section 203: Sustainable manufacturing initiative

This section amends the Energy Policy and Conservation Act to add a sustainable manufacturing initiative. At the request of a manufacturer, DOE will conduct onsite technical assessments to identify opportunities for maximizing energy and water use efficiency, preventing pollution, minimizing waste, conserving natural resources, and other goals. DOE will coordinate with the private sector and appropriate agencies to accelerate the adoption of relevant technologies. DOE will also partner with industry to form an RD&D program in sustainable manufacturing and industrial technologies.

Subtitle B – Supply Star

Section 211: Supply Star

This section amends the Energy Policy and Conservation Act. DOE will establish a Supply Star program to identify and promote practices, recognize companies, and recognize products that use highly efficient supply chains that conserve resources. DOE will work to enhance industry and public awareness of the program, collect and disseminate data and metrics on supply chain resource consumption, work with organizations to harmonize approaches to analyzing supply chain efficiency, and work with industry to improve supply chain efficiency. In evaluating supply chain efficiency, DOE will consider energy consumption and resource use through the entire lifecycle of the product.

DOE may award grants or other incentives on a competitive basis to eligible entities for the purposes of either studying supply chain resource efficiency or reducing energy resource consumption of commercial products through improvements to the production supply and distribution chain of products. Information gathered from this program will be used to improve the Supply Star Program. DOE will fund relevant professional training programs.

DOE will not consider the impact of climate change when determining supply chain efficiency, and will not count the outsourcing of American jobs in production as a positive factor when determining efficiency. There is authorized to be appropriated \$10 million for the period of FY 2015 through 2024.

Subtitle C – Extended Product System Rebate Program

Section 221: Extended product system rebate program

This section would require DOE to establish a program to provide rebates for expenditures made by qualified entities for the purchase or installation of a qualified extended product system. It outlines the application process and sets the limit for the amount of the rebate.

\$5 million is authorized to carry out this section for the first 2 full fiscal years following the date of enactment of this Act, to remain available until expended.

Subtitle D – Transformer Rebate Program

Section 231: Energy efficient transformer rebate program

This section would require DOE to establish a program to provide rebates to qualified entities for expenditures made by the qualified entity for the replacement of a qualified energy inefficient transformer with a qualified energy efficient transformer. It also describes the application requirements and limits the amount of the rebate.

\$5 million is authorized for each of fiscal years 2016 and 2017, to remain available until expended.

Title III – Federal Agency Energy Efficiency

Section 301: Energy-efficient and energy-saving information technologies

This section requires that within 1 year of the enactment of this subsection, each Federal agency, in collaboration with the Office of Management and Budget (OMB), shall develop an implementation strategy for the maintenance, purchase and use by the Federal agency of energy-efficient and energy-saving information technologies. OMB and DOE will develop methods to track progress towards performance goals and will include a report of each agency's progress in the annual scorecard.

Section 302: Availability of funds for design updates

Allows GSA to use appropriated funds to update the project design for any project that has received congressional approval and for which the design has been substantially completed, but construction has not begun. The purpose is to update the project design to meet applicable Federal building energy efficiency standards. The use of funds shall not exceed 125 percent of the estimated energy or other cost savings associated with the updates as determined by a life cycle cost analysis.

Section 303: Energy efficient data centers

This section requires DOE and EPA to shall release an update on Federal server and data center energy efficiency, which will compare previous projections with actual energy usage and update projections through 2020 based on new developments in technology. The section also required DOE to maintain a data center energy practitioner program, for the purpose of producing energy practitioners that are qualified to evaluate energy usage and efficiency opportunities in Federal data centers. Each Federal agency shall consider having the data centers of the agency evaluated once every 4 years. Best practices will also be made available to encourage further energy savings among Federal agencies.

Section 304: Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units

The Department of Housing and Urban Development (HUD) shall establish a demonstration program, for a limited time, during which HUD may enter into budget-neutral, performance-based agreements that result in a reduction in energy or water costs with such entities as HUD determines to be appropriate. These energy and water saving projects shall be done in not more than 20,000 residential units in multifamily buildings. HUD is required to present a detailed implementation plan to Congress in advance of the program and, following the program, conduct an evaluation of the program.

Title IV – Regulatory Provisions

Subtitle A – Third-Party Certification Under Energy Star Program

Section 401: Third-Party Certification Under Energy Star Program

Would require EPA to revise the certification requirements for the labeling of consumer, home and office electric products for program partners that have complied with all requirements of the Energy Star program for a period of at least 18 months. Third-party certification would no longer be required for a product to be listed if those requirements have been met. Program partners will lose this exemption if they violate the program requirements with respect to at least 2 separate models during a 2-year period. This exemption can be reinstated if a program partner complies with all Energy Star program requirements for a period of at least 3 years.

Subtitle B – Federal Green Buildings

Section 411: High-performance green Federal buildings

This provision would ensure that the green building ratings systems used by the General Services Administration (GSA) do not exclude certain building materials. DOE would be required to conduct an ongoing review into private sector green building certification systems and to work with other agencies to determine which certification system would encourage the most comprehensive and environmentally sound approach to certifying buildings.

Subtitle C – Water Heaters

Section 421: Grid-enabled water heaters

This provision would create an exemption for thermal storage water heaters under the new efficiency standards that go into effect in April 2015. Large grid-enabled electric-resistance water heaters could continue to be manufactured only if they include capabilities that allow them to be used in electric thermal storage or demand response programs. This provision was signed into law as part of S. 535, the Energy Efficiency Improvement Act of 2015.

Subtitle D – Energy performance requirement for Federal buildings

Section 431: Energy performance requirement for Federal buildings

Outlines a reduction plan of energy use per gross square foot for federal buildings from FY 2006 to FY 2017 based on FY 2003 consumption levels. Includes exemptions for buildings, such as industrial or laboratory facilities, in which energy intensive activities are carried out.

Requires energy managers to complete an annual comprehensive energy and water evaluation covering approximately 25% of the agency's buildings, which will ensure that all of the agency's buildings will be evaluated at least once every 4 years.

In accordance with the above evaluation, each energy manager may choose to implement any energy or water saving measure that is life-cycle cost effective and must provide an explanation for why a measure, that was estimated to be life-cycle cost effective, was not implemented.

Section 432: Federal building energy efficiency performance standards; certification system and level for green buildings

Updates federal building energy efficiency performance standards to require that any new alterations or additions to existing federal buildings must meet or exceed the most recent revision of the International Energy Conservation Code (IECC) or ASHRAE Standard 90.1 (commercial buildings). Buildings that are planned to undergo major renovations must achieve energy consumption levels at least 30% below the relevant IECC or ASHRAE standard, unless demonstrated that such a requirement would not be life-cycle cost effective.

The federal building energy standards established under this section shall be reviewed by DOE once every 5 years and, if technologically feasible and economically justified, may upgrade the standards.

Section 433: Enhanced energy efficiency underwriting

Improves the agency of mortgage underwriting by federal mortgage agencies by ensuring that energy cost savings are included in the underwriting process. This language comes from the SAVE Act.

Subtitle E – Voluntary Verification Programs for Air Conditioning, Furnace, Boiler, Heat Pump, and Water Heater Products

Section 441: Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products

For the purposes of verifying compliance with energy conservation standards and ENERGY STAR specifications for these products, DOE and EPA shall rely on voluntary verification programs that have been recognized by DOE. A qualified voluntary verification program must be nationally recognized, satisfy any applicable elements of certain international standard organizations, test products a minimum of once a year, maintains a publically available list and several others.