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114TH CONGRESS
1ST SESSION

S. 535

IN THE HOUSE OF REPRESENTATIVES

APRIL 13, 2015
Referred to the Committee on Energy and Commerce

AN ACT

To promote energy efficiency.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''Energy Efficiency Improvement Act of 2015''.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

TITLE I—BETTER BUILDINGS

SEC. 101. SHORT TITLE.

This title may be cited as the ''Better Buildings Act of 2015''.

SEC. 102. ENERGY EFFICIENCY IN FEDERAL AND OTHER BUILDINGS.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of General Services.

(2) COST-EFFECTIVE ENERGY EFFICIENCY MEASURE.—The term ''cost-effective energy efficiency measure'' means any building product, material, equipment, or service, and the installing, imple-

menting, or operating thereof, that provides energy savings in an amount that is not less than the cost of such installing, implementing, or operating.

(3) COST-EFFECTIVE WATER EFFICIENCY MEASURE.—The term ''cost-effective water efficiency measure'' means any building product, material, equipment, or service, and the installing, implementing, or operating thereof, that provides water savings in an amount that is not less than the cost of such installing, implementing, or operating.

(b) MODEL PROVISIONS, POLICIES, AND BEST PRACTICES.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Administrator, in consultation with the Secretary of Energy and after providing the public with an opportunity for notice and comment, shall develop model commercial leasing provisions and best practices in accordance with this subsection.

(2) COMMERCIAL LEASING.—

(A) IN GENERAL.—The model commercial leasing provisions developed under this subsection shall, at a minimum, align the interests of building owners and tenants with regard to investments in cost-effective energy efficiency

measures and cost-effective water efficiency measures to encourage building owners and tenants to collaborate to invest in such measures.

(B) USE OF MODEL PROVISIONS.—The Administrator may use the model commercial leasing provisions developed under this subsection in any standard leasing document that designates a Federal agency (or other client of the Administrator) as a landlord or tenant.

(C) PUBLICATION.—The Administrator shall periodically publish the model commercial leasing provisions developed under this subsection, along with explanatory materials, to encourage building owners and tenants in the private sector to use such provisions and materials.

(3) REALTY SERVICES.—The Administrator shall develop policies and practices to implement cost-effective energy efficiency measures and cost-effective water efficiency measures for the realty services provided by the Administrator to Federal agencies (or other clients of the Administrator), including periodic training of appropriate Federal employees and contractors on how to identify and evaluate those measures.

(4) STATE AND LOCAL ASSISTANCE.—The Administrator, in consultation with the Secretary of Energy, shall make available model commercial leasing provisions and best practices developed under this subsection to State, county, and municipal governments for use in managing owned and leased building space in accordance with the goal of encouraging investment in all cost-effective energy efficiency measures and cost-effective water efficiency measures.

SEC. 103. SEPARATE SPACES WITH HIGH-PERFORMANCE ENERGY EFFICIENCY MEASURES.

(a) IN GENERAL.—Subtitle B of title IV of the Energy Independence and Security Act of 2007 (42 U.S.C. 17081 et seq.) is amended by adding at the end the following:

"SEC. 424. SEPARATE SPACES WITH HIGH-PERFORMANCE ENERGY EFFICIENCY MEASURES.

''(a) DEFINITIONS.—In this section:

''(1) HIGH-PERFORMANCE ENERGY EFFICIENCY MEASURE.—The term 'high-performance energy efficiency measure' means a technology, product, or practice that will result in substantial operational cost savings by reducing energy consumption and utility costs.

''(2) SEPARATE SPACES.—The term 'separate spaces' means areas within a commercial building that are leased or otherwise occupied by a tenant or other occupant for a period of time pursuant to the terms of a written agreement.

''(b) STUDY.—

''(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Secretary, acting through the Assistant Secretary of Energy Efficiency and Renewable Energy, shall complete a study on the feasibility of—

''(A) significantly improving energy efficiency in commercial buildings through the design and construction, by owners and tenants, of separate spaces with high-performance energy efficiency measures; and

''(B) encouraging owners and tenants to implement high-performance energy efficiency measures in separate spaces.

''(2) SCOPE.—The study shall, at a minimum, include—

''(A) descriptions of—

''(i) high-performance energy efficiency measures that should be considered

as part of the initial design and construction of separate spaces;

''(ii) processes that owners, tenants, architects, and engineers may replicate when designing and constructing separate spaces with high-performance energy efficiency measures;

''(iii) policies and best practices to achieve reductions in energy intensities for lighting, plug loads, heating, cooling, cooking, laundry, and other systems to satisfy the needs of the commercial building tenant;

''(iv) return on investment and payback analyses of the incremental cost and projected energy savings of the proposed set of high-performance energy efficiency measures, including consideration of available incentives;

''(v) models and simulation methods that predict the quantity of energy used by separate spaces with high-performance energy efficiency measures and that compare that predicted quantity to the quantity of energy used by separate spaces without

high-performance energy efficiency measures but that otherwise comply with applicable building code requirements;

''(vi) measurement and verification platforms demonstrating actual energy use of high-performance energy efficiency measures installed in separate spaces, and whether such measures generate the savings intended in the initial design and construction of the separate spaces;

''(vii) best practices that encourage an integrated approach to designing and constructing separate spaces to perform at optimum energy efficiency in conjunction with the central systems of a commercial building; and

''(viii) any impact on employment resulting from the design and construction of separate spaces with high-performance energy efficiency measures; and

''(B) case studies reporting economic and energy savings returns in the design and construction of separate spaces with high-performance energy efficiency measures.

''(3) PUBLIC PARTICIPATION.—Not later than 90 days after the date of the enactment of this section, the Secretary shall publish a notice in the Federal Register requesting public comments regarding effective methods, measures, and practices for the design and construction of separate spaces with high-performance energy efficiency measures.

''(4) PUBLICATION.—The Secretary shall publish the study on the website of the Department of Energy.''.

(b) CLERICAL AMENDMENT.—The table of contents in section 1(b) of the Energy Independence and Security Act of 2007 is amended by inserting after the item relating to section 423 the following new item:

''Sec. 424. Separate spaces with high-performance energy efficiency measures.''.

SEC. 104. TENANT STAR PROGRAM.

(a) IN GENERAL.—Subtitle B of title IV of the Energy Independence and Security Act of 2007 (42 U.S.C. 17081 et seq.) (as amended by section 103) is amended by adding at the end the following:

''SEC. 425. TENANT STAR PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) HIGH-PERFORMANCE ENERGY EFFICIENCY MEASURE.—The term 'high-performance energy efficiency measure' has the meaning given the term in section 424.

''(2) SEPARATE SPACES.—The term 'separate spaces' has the meaning given the term in section 424.

''(b) TENANT STAR.—The Administrator of the Environmental Protection Agency, in consultation with the Secretary of Energy, shall develop a voluntary program within the Energy Star program established by section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a), which may be known as 'Tenant Star', to promote energy efficiency in separate spaces leased by tenants or otherwise occupied within commercial buildings.

''(c) EXPANDING SURVEY DATA.—The Secretary of Energy, acting through the Administrator of the Energy Information Administration, shall—

''(1) collect, through each Commercial Buildings Energy Consumption Survey of the Energy Information Administration that is conducted after the date of enactment of this section, data on—

''(A) categories of building occupancy that are known to consume significant quantities of energy, such as occupancy by data centers, trading floors, and restaurants; and

''(B) other aspects of the property, building operation, or building occupancy determined by the Administrator of the Energy Information

Administration, in consultation with the Administrator of the Environmental Protection Agency, to be relevant in lowering energy consumption;

''(2) with respect to the first Commercial Buildings Energy Consumption Survey conducted after the date of enactment of this section, to the extent full compliance with the requirements of paragraph (1) is not feasible, conduct activities to develop the capability to collect such data and begin to collect such data; and

''(3) make data collected under paragraphs (1) and (2) available to the public in aggregated form and provide such data, and any associated results, to the Administrator of the Environmental Protection Agency for use in accordance with subsection (d).

''(d) RECOGNITION OF OWNERS AND TENANTS.—

''(1) OCCUPANCY-BASED RECOGNITION.—Not later than 1 year after the date on which sufficient data is received pursuant to subsection (c), the Administrator of the Environmental Protection Agency shall, following an opportunity for public notice and comment—

''(A) in a manner similar to the Energy Star rating system for commercial buildings,

develop policies and procedures to recognize tenants in commercial buildings that voluntarily achieve high levels of energy efficiency in separate spaces;

''(B) establish building occupancy categories eligible for Tenant Star recognition based on the data collected under subsection (c) and any other appropriate data sources; and

''(C) consider other forms of recognition for commercial building tenants or other occupants that lower energy consumption in separate spaces.

''(2) DESIGN- AND CONSTRUCTION-BASED RECOGNITION.—After the study required by section 424(b) is completed, the Administrator of the Environmental Protection Agency, in consultation with the Secretary and following an opportunity for public notice and comment, may develop a voluntary program to recognize commercial building owners and tenants that use high-performance energy efficiency measures in the design and construction of separate spaces.''.

(b) CLERICAL AMENDMENT.—The table of contents in section 1(b) of the Energy Independence and Security Act of 2007 is amended by inserting after the item relat-

ing to section 424 (as added by section 103(b)) the following new item:

''Sec. 425. Tenant Star program.''.

TITLE II—GRID-ENABLED WATER HEATERS

SEC. 201. GRID-ENABLED WATER HEATERS.

Part B of title III of the Energy Policy and Conservation Act is amended—

(1) in section 325(e) (42 U.S.C. 6295(e)), by adding at the end the following:

''(6) ADDITIONAL STANDARDS FOR GRID-ENABLED WATER HEATERS.—

''(A) DEFINITIONS.—In this paragraph:

''(i) ACTIVATION LOCK.—The term 'activation lock' means a control mechanism (either a physical device directly on the water heater or a control system integrated into the water heater) that is locked by default and contains a physical, software, or digital communication that must be activated with an activation key to enable the product to operate at its designed specifications and capabilities and without which activation the product will provide not greater than 50 percent of the rated

first hour delivery of hot water certified by the manufacturer.

"(ii) GRID-ENABLED WATER HEATER.—The term 'grid-enabled water heater' means an electric resistance water heater that—

"(I) has a rated storage tank volume of more than 75 gallons;

"(II) is manufactured on or after April 16, 2015;

"(III) has—

"(aa) an energy factor of not less than 1.061 minus the product obtained by multiplying—

"(AA) the rated storage volume of the tank, expressed in gallons; and

"(BB) 0.00168; or

"(bb) an equivalent alternative standard prescribed by the Secretary and developed pursuant to paragraph (5)(E);

"(IV) is equipped at the point of manufacture with an activation lock; and

"(V) bears a permanent label applied by the manufacturer that—

"(aa) is made of material not adversely affected by water;

"(bb) is attached by means of non-water-soluble adhesive; and

"(cc) advises purchasers and end-users of the intended and appropriate use of the product with the following notice printed in 16.5 point Arial Narrow Bold font:

"'IMPORTANT INFORMATION: This water heater is intended only for use as part of an electric thermal storage or demand response program. It will not provide adequate hot water unless enrolled in such a program and activated by your utility company or another program operator. Confirm the availability of a program in your local area before purchasing or installing this product.'.

"(B) REQUIREMENT.—The manufacturer or private labeler shall provide the activation

key for a grid-enabled water heater only to a utility or other company that operates an electric thermal storage or demand response program that uses such a grid-enabled water heater.

''(C) REPORTS.—

''(i) MANUFACTURERS.—The Secretary shall require each manufacturer of grid-enabled water heaters to report to the Secretary annually the quantity of grid-enabled water heaters that the manufacturer ships each year.

''(ii) OPERATORS.—The Secretary shall require utilities and other demand response and thermal storage program operators to report annually the quantity of grid-enabled water heaters activated for their programs using forms of the Energy Information Agency or using such other mechanism that the Secretary determines appropriate after an opportunity for notice and comment.

''(iii) CONFIDENTIALITY REQUIREMENTS.—The Secretary shall treat ship-

ment data reported by manufacturers as confidential business information.

''(D) PUBLICATION OF INFORMATION.—

''(i) IN GENERAL.—In 2017 and 2019, the Secretary shall publish an analysis of the data collected under subparagraph (C) to assess the extent to which shipped products are put into use in demand response and thermal storage programs.

''(ii) PREVENTION OF PRODUCT DIVERSION.—If the Secretary determines that sales of grid-enabled water heaters exceed by 15 percent or greater the quantity of such products activated for use in demand response and thermal storage programs annually, the Secretary shall, after opportunity for notice and comment, establish procedures to prevent product diversion for non-program purposes.

''(E) COMPLIANCE.—

''(i) IN GENERAL.—Subparagraphs (A) through (D) shall remain in effect until the Secretary determines under this section that—

"(I) grid-enabled water heaters do not require a separate efficiency requirement; or

"(II) sales of grid-enabled water heaters exceed by 15 percent or greater the quantity of such products activated for use in demand response and thermal storage programs annually and procedures to prevent product diversion for non-program purposes would not be adequate to prevent such product diversion.

"(ii) EFFECTIVE DATE.—If the Secretary exercises the authority described in clause (i) or amends the efficiency requirement for grid-enabled water heaters, that action will take effect on the date described in subsection (m)(4)(A)(ii).

"(iii) CONSIDERATION.—In carrying out this section with respect to electric water heaters, the Secretary shall consider the impact on thermal storage and demand response programs, including any impact on energy savings, electric bills, peak load

reduction, electric reliability, integration of renewable resources, and the environment.

''(iv) REQUIREMENTS.—In carrying out this paragraph, the Secretary shall require that grid-enabled water heaters be equipped with communication capability to enable the grid-enabled water heaters to participate in ancillary services programs if the Secretary determines that the technology is available, practical, and cost-effective.'';

(2) in section 332(a) (42 U.S.C. 6302(a))—

(A) in paragraph (5), by striking ''or'' at the end;

(B) in the first paragraph (6), by striking the period at the end and inserting a semicolon;

(C) by redesignating the second paragraph (6) as paragraph (7);

(D) in subparagraph (B) of paragraph (7) (as so redesignated), by striking the period at the end and inserting ''; or''; and

(E) by adding at the end the following:

''(8) for any person—

''(A) to activate an activation lock for a grid-enabled water heater with knowledge that

such water heater is not used as part of an electric thermal storage or demand response program;

''(B) to distribute an activation key for a grid-enabled water heater with knowledge that such activation key will be used to activate a grid-enabled water heater that is not used as part of an electric thermal storage or demand response program;

''(C) to otherwise enable a grid-enabled water heater to operate at its designed specification and capabilities with knowledge that such water heater is not used as part of an electric thermal storage or demand response program; or

''(D) to knowingly remove or render illegible the label of a grid-enabled water heater described in section 325(e)(6)(A)(ii)(V).'';

(3) in section 333(a) (42 U.S.C. 6303(a))—

(A) by striking ''section 332(a)(5)'' and inserting ''paragraph (5), (6), (7), or (8) of section 332(a)''; and

(B) by striking ''paragraph (1), (2), or (5) of section 332(a)'' and inserting ''paragraph

(1), (2), (5), (6), (7), or (8) of section 332(a)''; and

(4) in section 334 (42 U.S.C. 6304)—

(A) by striking ''section 332(a)(5)'' and inserting ''paragraph (5), (6), (7), or (8) of section 332(a)''; and

(B) by striking ''section 332(a)(6)'' and inserting ''section 332(a)(7)''.

TITLE III—ENERGY INFORMATION FOR COMMERCIAL BUILDINGS

SEC. 301. ENERGY INFORMATION FOR COMMERCIAL BUILDINGS.

(a) REQUIREMENT OF BENCHMARKING AND DISCLOSURE FOR LEASING BUILDINGS WITHOUT ENERGY STAR LABELS.—Section 435(b)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17091(b)(2)) is amended—

(1) by striking ''paragraph (2)'' and inserting ''paragraph (1)''; and

(2) by striking ''signing the contract,'' and all that follows through the period at the end and inserting the following:

''signing the contract, the following requirements are met:

''(A) The space is renovated for all energy efficiency and conservation improvements that would be cost effective over the life of the lease, including improvements in lighting, windows, and heating, ventilation, and air conditioning systems.

''(B)(i) Subject to clause (ii), the space is benchmarked under a nationally recognized, online, free benchmarking program, with public disclosure, unless the space is a space for which owners cannot access whole building utility consumption data, including spaces—

''(I) that are located in States with privacy laws that provide that utilities shall not provide such aggregated information to multitenant building owners; and

''(II) for which tenants do not provide energy consumption information to the commercial building owner in response to a request from the building owner.

''(ii) A Federal agency that is a tenant of the space shall provide to the building owner, or authorize the owner to obtain from the utility, the energy consumption information of the

space for the benchmarking and disclosure required by this subparagraph.''.

(b) STUDY.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary of Energy, in collaboration with the Administrator of the Environmental Protection Agency, shall complete a study—

(A) on the impact of—

(i) State and local performance benchmarking and disclosure policies, and any associated building efficiency policies, for commercial and multifamily buildings; and

(ii) programs and systems in which utilities provide aggregated information regarding whole building energy consumption and usage information to owners of multi-tenant commercial, residential, and mixed-use buildings;

(B) that identifies best practice policy approaches studied under subparagraph (A) that have resulted in the greatest improvements in building energy efficiency; and

(C) that considers—

(i) compliance rates and the benefits and costs of the policies and programs on building owners, utilities, tenants, and other parties;

(ii) utility practices, programs, and systems that provide aggregated energy consumption information to multitenant building owners, and the impact of public utility commissions and State privacy laws on those practices, programs, and systems;

(iii) exceptions to compliance in existing laws where building owners are not able to gather or access whole building energy information from tenants or utilities;

(iv) the treatment of buildings with—

(I) multiple uses;

(II) uses for which baseline information is not available; and

(III) uses that require high levels of energy intensities, such as data centers, trading floors, and televisions studios;

(v) implementation practices, including disclosure methods and phase-in of compliance;

(vi) the safety and security of benchmarking tools offered by government agencies, and the resiliency of those tools against cyber attacks; and

(vii) international experiences with regard to building benchmarking and disclosure laws and data aggregation for multitenant buildings.

(2) SUBMISSION TO CONGRESS.—At the conclusion of the study, the Secretary shall submit to the Committee on Energy and Commerce of the House of Representatives and Committee on Energy and Natural Resources of the Senate a report on the results of the study.

(c) CREATION AND MAINTENANCE OF DATABASE.—

(1) IN GENERAL.—Not later than 18 months after the date of enactment of this Act and following opportunity for public notice and comment, the Secretary of Energy, in coordination with other relevant agencies, shall maintain, and if necessary create, a database for the purpose of storing and making available public energy-related information on commercial and multifamily buildings, including—

(A) data provided under Federal, State, local, and other laws or programs regarding

building benchmarking and energy information disclosure;

(B) information on buildings that have disclosed energy ratings and certifications; and

(C) energy-related information on buildings provided voluntarily by the owners of the buildings, only in an anonymous form unless the owner provides otherwise.

(2) COMPLEMENTARY PROGRAMS.—The database maintained pursuant to paragraph (1) shall complement and not duplicate the functions of the Environmental Protection Agency's Energy Star Portfolio Manager tool.

(d) INPUT FROM STAKEHOLDERS.—The Secretary of Energy shall seek input from stakeholders to maximize the effectiveness of the actions taken under this section.

(e) REPORT.—Not later than 2 years after the date of enactment of this Act, and every 2 years thereafter, the Secretary of Energy shall submit to the Committee on Energy and Commerce of the House of Representatives and Committee on Energy and Natural Resources of the

Senate a report on the progress made in complying with this section.

Passed the Senate March 26 (legislative day, March 27), 2015.

Attest: JULIE E. ADAMS,
Secretary.