

114TH CONGRESS
1ST SESSION

S. 128

To promote energy efficiency, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JANUARY 8, 2015

Mr. PORTMAN (for himself and Mrs. SHAHEEN) introduced the following bill;
which was read twice and referred to the Committee on Environment and
Public Works

A BILL

To promote energy efficiency, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Energy Efficiency Im-
5 provement Act of 2015”.

6 **TITLE I—BETTER BUILDINGS**

7 **SEC. 101. SHORT TITLE.**

8 This title may be cited as the “Better Buildings Act
9 of 2015”.

1 **SEC. 102. ENERGY EFFICIENCY IN FEDERAL AND OTHER**
2 **BUILDINGS.**

3 (a) DEFINITIONS.—In this section:

4 (1) ADMINISTRATOR.—The term “Adminis-
5 trator” means the Administrator of General Serv-
6 ices.

7 (2) COST-EFFECTIVE ENERGY EFFICIENCY
8 MEASURE.—The term “cost-effective energy effi-
9 ciency measure” means any building product, mate-
10 rial, equipment, or service, and the installing, imple-
11 menting, or operating thereof, that provides energy
12 savings in an amount that is not less than the cost
13 of such installing, implementing, or operating.

14 (3) COST-EFFECTIVE WATER EFFICIENCY
15 MEASURE.—The term “cost-effective water efficiency
16 measure” means any building product, material,
17 equipment, or service, and the installing, imple-
18 menting, or operating thereof, that provides water
19 savings in an amount that is not less than the cost
20 of such installing, implementing, or operating.

21 (b) MODEL PROVISIONS, POLICIES, AND BEST PRAC-
22 TICES.—

23 (1) IN GENERAL.—Not later than 180 days
24 after the date of enactment of this Act, the Adminis-
25 trator, in consultation with the Secretary of Energy
26 and after providing the public with an opportunity

1 for notice and comment, shall develop model com-
2 mercial leasing provisions and best practices in ac-
3 cordance with this subsection.

4 (2) COMMERCIAL LEASING.—

5 (A) IN GENERAL.—The model commercial
6 leasing provisions developed under this sub-
7 section shall, at a minimum, align the interests
8 of building owners and tenants with regard to
9 investments in cost-effective energy efficiency
10 measures and cost-effective water efficiency
11 measures to encourage building owners and ten-
12 ants to collaborate to invest in such measures.

13 (B) USE OF MODEL PROVISIONS.—The
14 Administrator may use the model commercial
15 leasing provisions developed under this sub-
16 section in any standard leasing document that
17 designates a Federal agency (or other client of
18 the Administrator) as a landlord or tenant.

19 (C) PUBLICATION.—The Administrator
20 shall periodically publish the model commercial
21 leasing provisions developed under this sub-
22 section, along with explanatory materials, to en-
23 courage building owners and tenants in the pri-
24 vate sector to use such provisions and mate-
25 rials.

1 (3) REALTY SERVICES.—The Administrator
2 shall develop policies and practices to implement
3 cost-effective energy efficiency measures and cost-ef-
4 fective water efficiency measures for the realty serv-
5 ices provided by the Administrator to Federal agen-
6 cies (or other clients of the Administrator), including
7 periodic training of appropriate Federal employees
8 and contractors on how to identify and evaluate
9 those measures.

10 (4) STATE AND LOCAL ASSISTANCE.—The Ad-
11 ministrator, in consultation with the Secretary of
12 Energy, shall make available model commercial leas-
13 ing provisions and best practices developed under
14 this subsection to State, county, and municipal gov-
15 ernments for use in managing owned and leased
16 building space in accordance with the goal of encour-
17 aging investment in all cost-effective energy effi-
18 ciency measures and cost-effective water efficiency
19 measures.

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

22 (a) IN GENERAL.—Subtitle B of title IV of the En-
23 ergy Independence and Security Act of 2007 (42 U.S.C.
24 17081 et seq.) is amended by adding at the end the fol-
25 lowing:

1 **“SEC. 424. SEPARATE SPACES WITH HIGH-PERFORMANCE**
2 **ENERGY EFFICIENCY MEASURES.**

3 “(a) DEFINITIONS.—In this section:

4 “(1) HIGH-PERFORMANCE ENERGY EFFICIENCY
5 MEASURE.—The term ‘high-performance energy effi-
6 ciency measure’ means a technology, product, or
7 practice that will result in substantial operational
8 cost savings by reducing energy consumption and
9 utility costs.

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

15 “(b) STUDY.—

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

21 “(A) significantly improving energy effi-
22 ciency in commercial buildings through the de-
23 sign and construction, by owners and tenants,
24 of separate spaces with high-performance en-
25 ergy efficiency measures; and

1 “(B) encouraging owners and tenants to
2 implement high-performance energy efficiency
3 measures in separate spaces.

4 “(2) SCOPE.—The study shall, at a minimum,
5 include—

6 “(A) descriptions of—

7 “(i) high-performance energy effi-
8 ciency measures that should be considered
9 as part of the initial design and construc-
10 tion of separate spaces;

11 “(ii) processes that owners, tenants,
12 architects, and engineers may replicate
13 when designing and constructing separate
14 spaces with high-performance energy effi-
15 ciency measures;

16 “(iii) policies and best practices to
17 achieve reductions in energy intensities for
18 lighting, plug loads, heating, cooling, cook-
19 ing, laundry, and other systems to satisfy
20 the needs of the commercial building ten-
21 ant;

22 “(iv) return on investment and pay-
23 back analyses of the incremental cost and
24 projected energy savings of the proposed
25 set of high-performance energy efficiency

1 measures, including consideration of avail-
2 able incentives;

3 “(v) models and simulation methods
4 that predict the quantity of energy used by
5 separate spaces with high-performance en-
6 ergy efficiency measures and that compare
7 that predicted quantity to the quantity of
8 energy used by separate spaces without
9 high-performance energy efficiency meas-
10 ures but that otherwise comply with appli-
11 cable building code requirements;

12 “(vi) measurement and verification
13 platforms demonstrating actual energy use
14 of high-performance energy efficiency
15 measures installed in separate spaces, and
16 whether such measures generate the sav-
17 ings intended in the initial design and con-
18 struction of the separate spaces;

19 “(vii) best practices that encourage an
20 integrated approach to designing and con-
21 structing separate spaces to perform at op-
22 timum energy efficiency in conjunction
23 with the central systems of a commercial
24 building; and

1 “(viii) any impact on employment re-
2 sulting from the design and construction of
3 separate spaces with high-performance en-
4 ergy efficiency measures; and

5 “(B) case studies reporting economic and
6 energy savings returns in the design and con-
7 struction of separate spaces with high-perform-
8 ance energy efficiency measures.

9 “(3) PUBLIC PARTICIPATION.—Not later than
10 90 days after the date of the enactment of this sec-
11 tion, the Secretary shall publish a notice in the Fed-
12 eral Register requesting public comments regarding
13 effective methods, measures, and practices for the
14 design and construction of separate spaces with
15 high-performance energy efficiency measures.

16 “(4) PUBLICATION.—The Secretary shall pub-
17 lish the study on the website of the Department of
18 Energy.”.

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

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

23 **SEC. 104. TENANT STAR PROGRAM.**

24 (a) IN GENERAL.—Subtitle B of title IV of the En-
25 ergy Independence and Security Act of 2007 (42 U.S.C.

1 17081 et seq.) (as amended by section 103) is amended
2 by adding at the end the following:

3 **“SEC. 425. TENANT STAR PROGRAM.**

4 “(a) DEFINITIONS.—In this section:

5 “(1) HIGH-PERFORMANCE ENERGY EFFICIENCY
6 MEASURE.—The term ‘high-performance energy effi-
7 ciency measure’ has the meaning given the term in
8 section 424.

9 “(2) SEPARATE SPACES.—The term ‘separate
10 spaces’ has the meaning given the term in section
11 424.

12 “(b) TENANT STAR.—The Administrator of the Envi-
13 ronmental Protection Agency, in consultation with the
14 Secretary of Energy, shall develop a voluntary program
15 within the Energy Star program established by section
16 324A of the Energy Policy and Conservation Act (42
17 U.S.C. 6294a), which may be known as ‘Tenant Star’, to
18 promote energy efficiency in separate spaces leased by ten-
19 ants or otherwise occupied within commercial buildings.

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

23 “(1) collect, through each Commercial Build-
24 ings Energy Consumption Survey of the Energy In-

1 formation Administration that is conducted after the
2 date of enactment of this section, data on—

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

7 “(B) other aspects of the property, build-
8 ing operation, or building occupancy determined
9 by the Administrator of the Energy Information
10 Administration, in consultation with the Admin-
11 istrator of the Environmental Protection Agen-
12 cy, to be relevant in lowering energy consump-
13 tion;

14 “(2) with respect to the first Commercial Build-
15 ings Energy Consumption Survey conducted after
16 the date of enactment of this section, to the extent
17 full compliance with the requirements of paragraph
18 (1) is not feasible, conduct activities to develop the
19 capability to collect such data and begin to collect
20 such data; and

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

1 “(d) RECOGNITION OF OWNERS AND TENANTS.—

2 “(1) OCCUPANCY-BASED RECOGNITION.—Not
3 later than 1 year after the date on which sufficient
4 data is received pursuant to subsection (c), the Ad-
5 ministrator of the Environmental Protection Agency
6 shall, following an opportunity for public notice and
7 comment—

8 “(A) in a manner similar to the Energy
9 Star rating system for commercial buildings,
10 develop policies and procedures to recognize
11 tenants in commercial buildings that voluntarily
12 achieve high levels of energy efficiency in sepa-
13 rate spaces;

14 “(B) establish building occupancy cat-
15 egories eligible for Tenant Star recognition
16 based on the data collected under subsection (c)
17 and any other appropriate data sources; and

18 “(C) consider other forms of recognition
19 for commercial building tenants or other occu-
20 pants that lower energy consumption in sepa-
21 rate spaces.

22 “(2) DESIGN- AND CONSTRUCTION-BASED REC-
23 OGNITION.—After the study required by section
24 424(b) is completed, the Administrator of the Envi-
25 ronmental Protection Agency, in consultation with

1 the Secretary and following an opportunity for pub-
 2 lic notice and comment, may develop a voluntary
 3 program to recognize commercial building owners
 4 and tenants that use high-performance energy effi-
 5 ciency measures in the design and construction of
 6 separate spaces.”.

7 (b) CLERICAL AMENDMENT.—The table of contents
 8 in section 1(b) of the Energy Independence and Security
 9 Act of 2007 is amended by inserting after the item relat-
 10 ing to section 424 (as added by section 103(b)) the fol-
 11 lowing new item:

“Sec. 425. Tenant Star program.”.

12 **TITLE II—GRID-ENABLED WATER**
 13 **HEATERS**

14 **SEC. 201. GRID-ENABLED WATER HEATERS.**

15 Part B of title III of the Energy Policy and Conserva-
 16 tion Act is amended—

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

19 “(6) ADDITIONAL STANDARDS FOR GRID-EN-
 20 ABLED WATER HEATERS.—

21 “(A) DEFINITIONS.—In this paragraph:

22 “(i) ACTIVATION LOCK.—The term
 23 ‘activation lock’ means a control mecha-
 24 nism (either a physical device directly on
 25 the water heater or a control system inte-

1 grated into the water heater) that is locked
2 by default and contains a physical, soft-
3 ware, or digital communication that must
4 be activated with an activation key to en-
5 able the product to operate at its designed
6 specifications and capabilities and without
7 which activation the product will provide
8 not greater than 50 percent of the rated
9 first hour delivery of hot water certified by
10 the manufacturer.

11 “(ii) GRID-ENABLED WATER HEAT-
12 ER.—The term ‘grid-enabled water heater’
13 means an electric resistance water heater
14 that—

15 “(I) has a rated storage tank vol-
16 ume of more than 75 gallons;

17 “(II) is manufactured on or after
18 April 16, 2015;

19 “(III) has—

20 “(aa) an energy factor of
21 not less than 1.061 minus the
22 product obtained by multi-
23 plying—

1 “(AA) the rated storage
2 volume of the tank, ex-
3 pressed in gallons; and
4 “(BB) 0.00168; or
5 “(bb) an equivalent alter-
6 native standard prescribed by the
7 Secretary and developed pursu-
8 ant to paragraph (5)(E);
9 “(IV) is equipped at the point of
10 manufacture with an activation lock;
11 and
12 “(V) bears a permanent label ap-
13 plied by the manufacturer that—
14 “(aa) is made of material
15 not adversely affected by water;
16 “(bb) is attached by means
17 of non-water-soluble adhesive;
18 and
19 “(cc) advises purchasers and
20 end-users of the intended and ap-
21 propriate use of the product with
22 the following notice printed in
23 16.5 point Arial Narrow Bold
24 font:

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

8 “(B) REQUIREMENT.—The manufacturer
9 or private labeler shall provide the activation
10 key for a grid-enabled water heater only to a
11 utility or other company that operates an elec-
12 tric thermal storage or demand response pro-
13 gram that uses such a grid-enabled water heat-
14 er.

15 “(C) REPORTS.—

16 “(i) MANUFACTURERS.—The Sec-
17 retary shall require each manufacturer of
18 grid-enabled water heaters to report to the
19 Secretary annually the quantity of grid-en-
20 abled water heaters that the manufacturer
21 ships each year.

22 “(ii) OPERATORS.—The Secretary
23 shall require utilities and other demand re-
24 sponse and thermal storage program oper-
25 ators to report annually the quantity of

1 grid-enabled water heaters activated for
2 their programs using forms of the Energy
3 Information Agency or using such other
4 mechanism that the Secretary determines
5 appropriate after an opportunity for notice
6 and comment.

7 “(iii) CONFIDENTIALITY REQUIRE-
8 MENTS.—The Secretary shall treat ship-
9 ment data reported by manufacturers as
10 confidential business information.

11 “(D) PUBLICATION OF INFORMATION.—

12 “(i) IN GENERAL.—In 2017 and
13 2019, the Secretary shall publish an anal-
14 ysis of the data collected under subpara-
15 graph (C) to assess the extent to which
16 shipped products are put into use in de-
17 mand response and thermal storage pro-
18 grams.

19 “(ii) PREVENTION OF PRODUCT DI-
20 VERSION.—If the Secretary determines
21 that sales of grid-enabled water heaters ex-
22 ceed by 15 percent or greater the quantity
23 of such products activated for use in de-
24 mand response and thermal storage pro-
25 grams annually, the Secretary shall, after

1 opportunity for notice and comment, estab-
2 lish procedures to prevent product diver-
3 sion for non-program purposes.

4 “(E) COMPLIANCE.—

5 “(i) IN GENERAL.—Subparagraphs
6 (A) through (D) shall remain in effect
7 until the Secretary determines under this
8 section that—

9 “(I) grid-enabled water heaters
10 do not require a separate efficiency
11 requirement; or

12 “(II) sales of grid-enabled water
13 heaters exceed by 15 percent or great-
14 er the quantity of such products acti-
15 vated for use in demand response and
16 thermal storage programs annually
17 and procedures to prevent product di-
18 version for non-program purposes
19 would not be adequate to prevent such
20 product diversion.

21 “(ii) EFFECTIVE DATE.—If the Sec-
22 retary exercises the authority described in
23 clause (i) or amends the efficiency require-
24 ment for grid-enabled water heaters, that

1 action will take effect on the date de-
2 scribed in subsection (m)(4)(A)(ii).

3 “(iii) CONSIDERATION.—In carrying
4 out this section with respect to electric
5 water heaters, the Secretary shall consider
6 the impact on thermal storage and demand
7 response programs, including any impact
8 on energy savings, electric bills, peak load
9 reduction, electric reliability, integration of
10 renewable resources, and the environment.

11 “(iv) REQUIREMENTS.—In carrying
12 out this paragraph, the Secretary shall re-
13 quire that grid-enabled water heaters be
14 equipped with communication capability to
15 enable the grid-enabled water heaters to
16 participate in ancillary services programs if
17 the Secretary determines that the tech-
18 nology is available, practical, and cost-ef-
19 fective.”;

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

21 (A) in paragraph (5), by striking “or” at
22 the end;

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

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

3 (D) in subparagraph (B) of paragraph (7)
4 (as so redesignated), by striking the period at
5 the end and inserting “; or”; and

6 (E) by adding at the end the following:

7 “(8) for any person—

8 “(A) to activate an activation lock for a
9 grid-enabled water heater with knowledge that
10 such water heater is not used as part of an
11 electric thermal storage or demand response
12 program;

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

19 “(C) to otherwise enable a grid-enabled
20 water heater to operate at its designed speci-
21 fication and capabilities with knowledge that
22 such water heater is not used as part of an
23 electric thermal storage or demand response
24 program; or

1 “(D) to knowingly remove or render illegi-
 2 ble the label of a grid-enabled water heater de-
 3 scribed in section 325(e)(6)(A)(ii)(V).”;

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

5 (A) by striking “section 332(a)(5)” and in-
 6 serting “paragraph (5), (6), (7), or (8) of sec-
 7 tion 332(a)”;

8 (B) by striking “paragraph (1), (2), or (5)
 9 of section 332(a)” and inserting “paragraph
 10 (1), (2), (5), (6), (7), or (8) of section 332(a)”;
 11 and

12 (4) in section 334 (42 U.S.C. 6304)—

13 (A) by striking “section 332(a)(5)” and in-
 14 serting “paragraph (5), (6), (7), or (8) of sec-
 15 tion 332(a)”;

16 (B) by striking “section 332(a)(6)” and in-
 17 serting “section 332(a)(7)”.

18 **TITLE III—ENERGY EFFICIENT**

19 **GOVERNMENT TECHNOLOGY**

20 **SEC. 301. SHORT TITLE.**

21 This title may be cited as the “Energy Efficient Gov-
 22 ernment Technology Act”.

1 **SEC. 302. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-**
2 **MATION TECHNOLOGIES.**

3 Subtitle C of title V of the Energy Independence and
4 Security Act of 2007 (Public Law 110–140; 121 Stat.
5 1661) is amended by adding at the end the following:

6 **“SEC. 530. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-**
7 **MATION TECHNOLOGIES.**

8 “(a) DEFINITIONS.—In this section:

9 “(1) DIRECTOR.—The term ‘Director’ means
10 the Director of the Office of Management and Budg-
11 et.

12 “(2) INFORMATION TECHNOLOGY.—The term
13 ‘information technology’ has the meaning given that
14 term in section 11101 of title 40, United States
15 Code.

16 “(b) DEVELOPMENT OF IMPLEMENTATION STRAT-
17 EGY.—Not later than 1 year after the date of enactment
18 of this section, each Federal agency shall coordinate with
19 the Director, the Secretary, and the Administrator of the
20 Environmental Protection Agency to develop an implemen-
21 tation strategy (that includes best practices and measure-
22 ment and verification techniques) for the maintenance,
23 purchase, and use by the Federal agency of energy-effi-
24 cient and energy-saving information technologies, taking
25 into consideration the performance goals established under
26 subsection (d).

1 “(c) ADMINISTRATION.—In developing an implemen-
2 tation strategy under subsection (b), each Federal agency
3 shall consider—

4 “(1) advanced metering infrastructure;

5 “(2) energy-efficient data center strategies and
6 methods of increasing asset and infrastructure utili-
7 zation;

8 “(3) advanced power management tools;

9 “(4) building information modeling, including
10 building energy management;

11 “(5) secure telework and travel substitution
12 tools; and

13 “(6) mechanisms to ensure that the agency re-
14 alizes the energy cost savings brought about through
15 increased efficiency and utilization.

16 “(d) PERFORMANCE GOALS.—

17 “(1) IN GENERAL.—Not later than 180 days
18 after the date of enactment of this section, the Di-
19 rector, in consultation with the Secretary, shall es-
20 tablish performance goals for evaluating the efforts
21 of Federal agencies in improving the maintenance,
22 purchase, and use of energy-efficient and energy-sav-
23 ing information technology.

24 “(2) BEST PRACTICES.—The Chief Information
25 Officers Council established under section 3603 of

1 title 44, United States Code, shall recommend best
 2 practices for the attainment of the performance
 3 goals, which shall include Federal agency consider-
 4 ation of the use of—

5 “(A) energy savings performance con-
 6 tracting; and

7 “(B) utility energy services contracting.

8 “(e) REPORTS.—

9 “(1) AGENCY REPORTS.—Each Federal agency
 10 shall include in the report of the agency under sec-
 11 tion 527 a description of the efforts and results of
 12 the agency under this section.

13 “(2) OMB GOVERNMENT EFFICIENCY REPORTS
 14 AND SCORECARDS.—Effective beginning not later
 15 than October 1, 2015, the Director shall include in
 16 the annual report and scorecard of the Director re-
 17 quired under section 528 a description of the efforts
 18 and results of Federal agencies under this section.”.

19 **SEC. 303. ENERGY EFFICIENT DATA CENTERS.**

20 Section 453 of the Energy Independence and Security
 21 Act of 2007 (42 U.S.C. 17112) is amended—

22 (1) in subsection (b)—

23 (A) in paragraph (2)(D)(iv), by striking
 24 “the organization” and inserting “an organiza-
 25 tion”; and

1 (B) by striking paragraph (3); and

2 (2) by striking subsections (e) through (g) and
3 inserting the following:

4 “(c) **STAKEHOLDER INVOLVEMENT.**—The Secretary
5 and the Administrator shall carry out subsection (b) in
6 collaboration with the information technology industry and
7 other key stakeholders, with the goal of producing results
8 that accurately reflect the best knowledge in the most per-
9 tinent domains. In such collaboration, the Secretary and
10 the Administrator shall pay particular attention to organi-
11 zations that—

12 “(1) have members with expertise in energy ef-
13 ficiency and in the development, operation, and
14 functionality of data centers, information technology
15 equipment, and software, such as representatives of
16 hardware manufacturers, data center operators, and
17 facility managers;

18 “(2) obtain and address input from Department
19 of Energy National Laboratories or any college, uni-
20 versity, research institution, industry association,
21 company, or public interest group with applicable ex-
22 pertise;

23 “(3) follow—

24 “(A) commonly accepted procedures for
25 the development of specifications; and

1 “(B) accredited standards development
2 processes; and

3 “(4) have a mission to promote energy effi-
4 ciency for data centers and information technology.

5 “(d) MEASUREMENTS AND SPECIFICATIONS.—The
6 Secretary and the Administrator shall consider and assess
7 the adequacy of the specifications, measurements, and
8 benchmarks described in subsection (b) for use by the
9 Federal Energy Management Program, the Energy Star
10 Program, and other efficiency programs of the Depart-
11 ment of Energy or the Environmental Protection Agency.

12 “(e) STUDY.—The Secretary, in collaboration with
13 the Administrator, shall, not later than 18 months after
14 the date of enactment of the Energy Efficient Government
15 Technology Act, make available to the public an update
16 to the Report to Congress on Server and Data Center En-
17 ergy Efficiency published on August 2, 2007, under sec-
18 tion 1 of Public Law 109–431 (120 Stat. 2920), that pro-
19 vides—

20 “(1) a comparison and gap analysis of the esti-
21 mates and projections contained in the original re-
22 port with new data regarding the period from 2007
23 through 2014;

1 “(2) an analysis considering the impact of in-
2 formation technologies, to include virtualization and
3 cloud computing, in the public and private sectors;

4 “(3) an evaluation of the impact of the com-
5 bination of cloud platforms, mobile devices, social
6 media, and big data on data center energy usage;
7 and

8 “(4) updated projections and recommendations
9 for best practices through fiscal year 2020.

10 “(f) DATA CENTER ENERGY PRACTITIONER PRO-
11 GRAM.—The Secretary, in collaboration with key stake-
12 holders and the Director of the Office of Management and
13 Budget, shall maintain a data center energy practitioner
14 program that leads to the certification of energy practi-
15 tioners qualified to evaluate the energy usage and effi-
16 ciency opportunities in Federal data centers. Each Federal
17 agency shall consider having the data centers of the agen-
18 cy evaluated every 4 years by energy practitioners certified
19 pursuant to such program, whenever practicable using cer-
20 tified practitioners employed by the agency.

21 “(g) OPEN DATA INITIATIVE.—The Secretary, in col-
22 laboration with key stakeholders and the Office of Man-
23 agement and Budget, shall establish an open data initia-
24 tive for Federal data center energy usage data, with the
25 purpose of making such data available and accessible in

1 a manner that encourages further data center innovation,
2 optimization, and consolidation. In establishing the initia-
3 tive, the Secretary shall consider the use of the online
4 Data Center Maturity Model.

5 “(h) INTERNATIONAL SPECIFICATIONS AND
6 METRICS.—The Secretary, in collaboration with key
7 stakeholders, shall actively participate in efforts to har-
8 monize global specifications and metrics for data center
9 energy efficiency.

10 “(i) DATA CENTER UTILIZATION METRIC.—The Sec-
11 retary, in collaboration with key stakeholders, shall facili-
12 tate in the development of an efficiency metric that meas-
13 ures the energy efficiency of a data center (including
14 equipment and facilities).

15 “(j) PROTECTION OF PROPRIETARY INFORMATION.—
16 The Secretary and the Administrator shall not disclose
17 any proprietary information or trade secrets provided by
18 any individual or company for the purposes of carrying
19 out this section or the programs and initiatives established
20 under this section.”.

1 **TITLE IV—ENERGY INFORMA-**
2 **TION FOR COMMERCIAL**
3 **BUILDINGS**

4 **SEC. 401. ENERGY INFORMATION FOR COMMERCIAL BUILD-**
5 **INGS.**

6 (a) REQUIREMENT OF BENCHMARKING AND DISCLO-
7 SURE FOR LEASING BUILDINGS WITHOUT ENERGY STAR
8 LABELS.—Section 435(b)(2) of the Energy Independence
9 and Security Act of 2007 (42 U.S.C. 17091(b)(2)) is
10 amended—

11 (1) by striking “paragraph (2)” and inserting
12 “paragraph (1)”; and

13 (2) by striking “signing the contract,” and all
14 that follows through the period at the end and in-
15 serting the following:

16 “signing the contract, the following requirements are
17 met:

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

24 “(B)(i) Subject to clause (ii), the space is
25 benchmarked under a nationally recognized, on-

1 line, free benchmarking program, with public
2 disclosure, unless the space is a space for which
3 owners cannot access whole building utility con-
4 sumption data, including spaces—

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

9 “(II) for which tenants do not provide
10 energy consumption information to the
11 commercial building owner in response to a
12 request from the building owner.

13 “(ii) A Federal agency that is a tenant of
14 the space shall provide to the building owner, or
15 authorize the owner to obtain from the utility,
16 the energy consumption information of the
17 space for the benchmarking and disclosure re-
18 quired by this subparagraph.”.

19 (b) STUDY.—

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

25 (A) on the impact of—

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

6 (ii) programs and systems in which
7 utilities provide aggregated information re-
8 garding whole building energy consumption
9 and usage information to owners of multi-
10 tenant commercial, residential, and mixed-
11 use buildings;

12 (B) that identifies best practice policy ap-
13 proaches studied under subparagraph (A) that
14 have resulted in the greatest improvements in
15 building energy efficiency; and

16 (C) that considers—

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

21 (ii) utility practices, programs, and
22 systems that provide aggregated energy
23 consumption information to multitenant
24 building owners, and the impact of public

1 utility commissions and State privacy laws
2 on those practices, programs, and systems;
3 (iii) exceptions to compliance in exist-
4 ing laws where building owners are not
5 able to gather or access whole building en-
6 ergy information from tenants or utilities;
7 (iv) the treatment of buildings with—
8 (I) multiple uses;
9 (II) uses for which baseline infor-
10 mation is not available; and
11 (III) uses that require high levels
12 of energy intensities, such as data
13 centers, trading floors, and television
14 studios;
15 (v) implementation practices, includ-
16 ing disclosure methods and phase-in of
17 compliance;
18 (vi) the safety and security of
19 benchmarking tools offered by government
20 agencies, and the resiliency of those tools
21 against cyber-attacks; and
22 (vii) international experiences with re-
23 gard to building benchmarking and disclo-
24 sure laws and data aggregation for multi-
25 tenant buildings.

1 (2) SUBMISSION TO CONGRESS.—At the conclu-
2 sion of the study, the Secretary shall submit to the
3 Committee on Energy and Commerce of the House
4 of Representatives and Committee on Energy and
5 Natural Resources of the Senate a report on the re-
6 sults of the study.

7 (c) CREATION AND MAINTENANCE OF DATABASE.—

8 (1) IN GENERAL.—Not later than 18 months
9 after the date of enactment of this Act and following
10 opportunity for public notice and comment, the Sec-
11 retary of Energy, in coordination with other relevant
12 agencies, shall maintain, and if necessary create, a
13 database for the purpose of storing and making
14 available public energy-related information on com-
15 mercial and multifamily buildings, including—

16 (A) data provided under Federal, State,
17 local, and other laws or programs regarding
18 building benchmarking and energy information
19 disclosure;

20 (B) information on buildings that have dis-
21 closed energy ratings and certifications; and

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

1 (2) COMPLEMENTARY PROGRAMS.—The data-
2 base maintained pursuant to paragraph (1) shall
3 complement and not duplicate the functions of the
4 Environmental Protection Agency’s Energy Star
5 Portfolio Manager tool.

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

9 (e) REPORT.—Not later than 2 years after the date
10 of enactment of this Act, and every 2 years thereafter,
11 the Secretary of Energy shall submit to the Committee
12 on Energy and Commerce of the House of Representatives
13 and Committee on Energy and Natural Resources of the
14 Senate a report on the progress made in complying with
15 this section.

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