

113TH CONGRESS
2D SESSION

S. 2971

To promote energy efficiency, and for other purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 3, 2014

Mrs. SHAHEEN (for herself and Mr. PORTMAN) introduced the following bill;
which was read twice and referred to the Committee on Energy and Nat-
ural Resources, and 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 2014”.

6 **SEC. 2. TABLE OF CONTENTS.**

7 The table of contents for this Act is as follows:

Sec. 1. Short title.

Sec. 2. Table of contents.

TITLE I—BETTER BUILDINGS

Sec. 101. Short title.

Sec. 102. Energy efficiency in Federal and other buildings.

Sec. 103. Separate spaces with high-performance energy efficiency measures.

Sec. 104. Tenant star program.

TITLE III—ENERGY EFFICIENT GOVERNMENT TECHNOLOGY

Sec. 303. Energy efficient data centers.

Sec. 401. Energy information for commercial buildings.

19 (3) COST-EFFECTIVE WATER EFFICIENCY
20 MEASURE.—The term “cost-effective water efficiency

1 measure” means any building product, material,
 2 equipment, or service, and the installing, imple-
 3 menting, or operating of that building product, ma-
 4 terial, equipment, or service, that provides water
 5 savings in an amount that is not less than the cost
 6 of the installing, implementing, or operating.

7 (b) MODEL PROVISIONS, POLICIES, AND BEST PRAC-
 8 TICES.—

9 (1) IN GENERAL.—Not later than 180 days
 10 after the date of enactment of this Act, the Adminis-
 11 trator, in consultation with the Secretary of Energy
 12 and after providing the public with an opportunity
 13 for notice and comment, shall develop model com-
 14 mercial leasing provisions and best practices in ac-
 15 cordance with this subsection.

16 (2) COMMERCIAL LEASING.—

17 (A) IN GENERAL.—The model commercial
 18 leasing provisions developed under this sub-
 19 section shall align the interests of building own-
 20 ers and tenants with regard to investments in
 21 cost-effective energy efficiency measures and
 22 cost-effective water efficiency measures to en-
 23 courage building owners and tenants to collabo-
 24 rate to invest in cost-effective energy efficiency

1 measures and cost-effective water efficiency
2 measures.

3 (B) USE OF MODEL PROVISIONS.—The
4 Administrator may use the model commercial
5 leasing provisions developed under this sub-
6 section in any standard leasing document that
7 designates a Federal agency (or other client of
8 the Administrator) as a landlord or tenant.

9 (C) PUBLICATION.—The Administrator
10 shall periodically publish the model commercial
11 leasing provisions developed under this sub-
12 section, including explanatory materials, to en-
13 courage building owners and tenants in the pri-
14 vate sector to use the provisions and materials.

15 (3) REALTY SERVICES.—The Administrator
16 shall develop policies and practices to implement
17 cost-effective energy efficiency measures and cost-ef-
18 fective water efficiency measures for the realty serv-
19 ices provided by the Administrator to Federal agen-
20 cies (or other clients of the Administrator), including
21 periodic training of appropriate Federal employees
22 and contractors on how to identify and evaluate
23 those measures.

24 (4) STATE AND LOCAL ASSISTANCE.—The Ad-
25 ministrator, in consultation with the Secretary of

1 Energy, shall make available model commercial leas-
 2 ing provisions and best practices developed under
 3 this subsection to State, county, and municipal gov-
 4 ernments for use in managing owned and leased
 5 building space in accordance with the goal of encour-
 6 aging investment in all cost-effective energy effi-
 7 ciency measures and cost-effective water efficiency
 8 measures.

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

11 (a) IN GENERAL.—Subtitle B of title IV of the En-
 12 ergy Independence and Security Act of 2007 (42 U.S.C.
 13 17081 et seq.) is amended by adding at the end the fol-
 14 lowing:

15 **“SEC. 424. SEPARATE SPACES WITH HIGH-PERFORMANCE**
 16 **ENERGY EFFICIENCY MEASURES.**

17 “(a) DEFINITIONS.—In this section:

18 “(1) HIGH-PERFORMANCE ENERGY EFFICIENCY
 19 MEASURE.—The term ‘high-performance energy effi-
 20 ciency measure’ means a technology, product, or
 21 practice that will result in substantial operational
 22 cost savings by reducing energy consumption and
 23 utility costs.

24 “(2) SEPARATE SPACES.—The term ‘separate
 25 spaces’ means areas within a commercial building

1 that are leased or otherwise occupied by a tenant or
 2 other occupant for a period of time pursuant to the
 3 terms of a written agreement.

4 “(b) STUDY.—

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

10 “(A) significantly improving energy effi-
 11 ciency in commercial buildings through the de-
 12 sign and construction, by owners and tenants,
 13 of separate spaces with high-performance en-
 14 ergy efficiency measures; and

15 “(B) encouraging owners and tenants to
 16 implement high-performance energy efficiency
 17 measures in separate spaces.

18 “(2) SCOPE.—The study shall include—

19 “(A) descriptions of—

20 “(i) high-performance energy effi-
 21 ciency measures that should be considered
 22 as part of the initial design and construc-
 23 tion of separate spaces;

24 “(ii) processes that owners, tenants,
 25 architects, and engineers may replicate

1 when designing and constructing separate
2 spaces with high-performance energy effi-
3 ciency measures;

4 “(iii) policies and best practices to
5 achieve reductions in energy intensities for
6 lighting, plug loads, heating, cooling, cook-
7 ing, laundry, and other systems to satisfy
8 the needs of the commercial building ten-
9 ant;

10 “(iv) return on investment and pay-
11 back analyses of the incremental cost and
12 projected energy savings of the proposed
13 set of high-performance energy efficiency
14 measures, including consideration of avail-
15 able incentives;

16 “(v) models and simulation methods
17 that predict the quantity of energy used by
18 separate spaces with high-performance en-
19 ergy efficiency measures and that compare
20 that predicted quantity to the quantity of
21 energy used by separate spaces without
22 high-performance energy efficiency meas-
23 ures but that otherwise comply with appli-
24 cable building code requirements;

1 “(vi) measurement and verification
2 platforms demonstrating actual energy use
3 of high-performance energy efficiency
4 measures installed in separate spaces, and
5 whether such measures generate the sav-
6 ings intended in the initial design and con-
7 struction of the separate spaces;

8 “(vii) best practices that encourage an
9 integrated approach to designing and con-
10 structing separate spaces to perform at op-
11 timum energy efficiency in conjunction
12 with the central systems of a commercial
13 building; and

14 “(viii) any impact on employment re-
15 sulting from the design and construction of
16 separate spaces with high-performance en-
17 ergy efficiency measures; and

18 “(B) case studies reporting economic and
19 energy savings returns in the design and con-
20 struction of separate spaces with high-perform-
21 ance energy efficiency measures.

22 “(3) PUBLIC PARTICIPATION.—Not later than
23 90 days after the date of enactment of this section,
24 the Secretary shall publish a notice in the Federal
25 Register requesting public comments regarding ef-

1 fective methods, measures, and practices for the de-
 2 sign and construction of separate spaces with high-
 3 performance energy efficiency measures.

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

7 (b) CLERICAL AMENDMENT.—The table of contents
 8 in section 1(b) of the Energy Independence and Security
 9 Act of 2007 (42 U.S.C. 17001) is amended by inserting
 10 after the item relating to section 423 the following:

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

11 **SEC. 104. TENANT STAR PROGRAM.**

12 (a) IN GENERAL.—Subtitle B of title IV of the En-
 13 ergy Independence and Security Act of 2007 (42 U.S.C.
 14 17081 et seq.) (as amended by section 103) is amended
 15 by adding at the end the following:

16 **“SEC. 425. TENANT STAR PROGRAM.**

17 “(a) DEFINITIONS.—In this section:

18 “(1) HIGH-PERFORMANCE ENERGY EFFICIENCY
 19 MEASURE.—The term ‘high-performance energy effi-
 20 ciency measure’ has the meaning given the term in
 21 section 424.

22 “(2) SEPARATE SPACES.—The term ‘separate
 23 spaces’ has the meaning given the term in section
 24 424.

1 “(b) TENANT STAR.—The Administrator of the Envi-
 2 ronmental Protection Agency, in consultation with the
 3 Secretary, shall develop a voluntary program within the
 4 Energy Star program established by section 324A of the
 5 Energy Policy and Conservation Act (42 U.S.C. 6294a),
 6 which may be known as ‘Tenant Star’, to promote energy
 7 efficiency in separate spaces leased by tenants or other-
 8 wise occupied within commercial buildings.

9 “(c) EXPANDING SURVEY DATA.—The Secretary,
 10 acting through the Administrator of the Energy Informa-
 11 tion Administration, shall—

12 “(1) collect, through each Commercial Build-
 13 ings Energy Consumption Survey of the Energy In-
 14 formation Administration that is conducted after the
 15 date of enactment of this section, data on—

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

20 “(B) other aspects of the property, build-
 21 ing operation, or building occupancy determined
 22 by the Administrator of the Energy Information
 23 Administration, in consultation with the Admin-
 24 istrator of the Environmental Protection Agen-

1 cy, to be relevant in lowering energy consump-
2 tion;

3 “(2) with respect to the first Commercial Build-
4 ings Energy Consumption Survey conducted after
5 the date of enactment of this section, to the extent
6 full compliance with the requirements of paragraph
7 (1) is not feasible, conduct activities to develop the
8 capability to collect the data and begin to collect the
9 data; and

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

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

16 “(1) OCCUPANCY-BASED RECOGNITION.—Not
17 later than 1 year after the date on which sufficient
18 data is received pursuant to subsection (c), the Ad-
19 ministrator of the Environmental Protection Agency
20 shall, following an opportunity for public notice and
21 comment—

22 “(A) in a manner similar to the Energy
23 Star rating system for commercial buildings,
24 develop policies and procedures to recognize
25 tenants in commercial buildings that voluntarily

1 achieve high levels of energy efficiency in sepa-
 2 rate spaces;

3 “(B) establish building occupancy cat-
 4 egories eligible for Tenant Star recognition
 5 based on the data collected under subsection (c)
 6 and any other appropriate data sources; and

7 “(C) consider other forms of recognition
 8 for commercial building tenants or other occu-
 9 pants that lower energy consumption in sepa-
 10 rate spaces.

11 “(2) DESIGN- AND CONSTRUCTION-BASED REC-
 12 OGNITION.—After the study required by section
 13 424(b) is completed, the Administrator of the Envi-
 14 ronmental Protection Agency, in consultation with
 15 the Secretary and following an opportunity for pub-
 16 lic notice and comment, may develop a voluntary
 17 program to recognize commercial building owners
 18 and tenants that use high-performance energy effi-
 19 ciency measures in the design and construction of
 20 separate spaces.”.

21 (b) CLERICAL AMENDMENT.—The table of contents
 22 in section 1(b) of the Energy Independence and Security
 23 Act of 2007 (42 U.S.C. 17001) is amended by inserting
 24 after the item relating to section 424 (as added by section
 25 103(b)) the following:

“Sec. 425. Tenant Star program.”.

1 **TITLE II—GRID-ENABLED WATER**

2 **HEATERS**

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

4 (a) ENERGY CONSERVATION STANDARDS.—Section
 5 325(e) of the Energy Policy and Conservation Act (42
 6 U.S.C. 6295(e)) is amended by adding at the end the fol-
 7 lowing:

8 “(6) ADDITIONAL STANDARDS FOR GRID-EN-
 9 ABLED WATER HEATERS.—

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

11 “(i) ACTIVATION LOCK.—The term
 12 ‘activation lock’ means a control mecha-
 13 nism that is either a physical device di-
 14 rectly on the water heater or a control sys-
 15 tem integrated into the water heater that
 16 is locked by default and contains a phys-
 17 ical, software, or digital communication
 18 that must be activated with an activation
 19 key to enable the product to operate at its
 20 designed specifications and capabilities and
 21 without which activation the product would
 22 provide not greater than 50 percent of the
 23 rated first hour delivery of hot water cer-
 24 tified by the manufacturer.

1 “(ii) GRID-ENABLED WATER HEAT-
2 ER.—The term ‘grid-enabled water heater’
3 means an electric resistance water heater
4 that—

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

7 “(II) is manufactured on or after
8 April 16, 2015;

9 “(III) has—

10 “(aa) an energy factor of
11 not less than 1.061 minus the
12 product obtained by multi-
13 plying—

14 “(AA) the rated storage
15 volume of the tank, ex-
16 pressed in gallons; and

17 “(BB) 0.00168; or

18 “(bb) an equivalent alter-
19 native standard prescribed by the
20 Secretary and developed pursu-
21 ant to paragraph (5)(E);

22 “(IV) is equipped at the point of
23 manufacture with an activation lock;
24 and

1 “(V) bears a permanent label ap-
2 plied by the manufacturer that—

3 “(aa) is made of material
4 not adversely affected by water;

5 “(bb) is attached by means
6 of non-water-soluble adhesive;
7 and

8 “(cc) advises purchasers and
9 end-users of the intended and ap-
10 propriate use of the product with
11 the following notice printed in
12 16.5 point Arial Narrow Bold
13 font:

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

21 “(B) REQUIREMENT.—The manufacturer
22 or private labeler shall provide the activation
23 key for a grid-enabled water heater only to a
24 utility or other company that operates an elec-
25 tric thermal storage or demand response pro-

1 gram that uses such a grid-enabled water heat-
2 er.

3 “(C) REPORTS.—

4 “(i) MANUFACTURERS.—The Sec-
5 retary shall require each manufacturer of
6 grid-enabled water heaters to report to the
7 Secretary annually the quantity of grid-en-
8 abled water heaters that the manufacturer
9 ships each year.

10 “(ii) OPERATORS.—The Secretary
11 shall require utilities and other demand re-
12 sponse and thermal storage program oper-
13 ators to report annually the quantity of
14 grid-enabled water heaters activated for
15 their programs using forms of the Energy
16 Information Agency or using such other
17 mechanism that the Secretary determines
18 appropriate after an opportunity for notice
19 and comment.

20 “(iii) CONFIDENTIALITY REQUIRE-
21 MENTS.—The Secretary shall treat ship-
22 ment data reported by manufacturers as
23 confidential business information.

24 “(D) PUBLICATION OF INFORMATION.—

1 “(i) IN GENERAL.—In 2017 and
2 2019, the Secretary shall publish an anal-
3 ysis of the data collected under subpara-
4 graph (C) to assess the extent to which
5 shipped products are put into use in de-
6 mand response and thermal storage pro-
7 grams.

8 “(ii) PREVENTION OF PRODUCT DI-
9 VERSION.—If the Secretary determines
10 that sales of grid-enabled water heaters ex-
11 ceed by 15 percent or greater the quantity
12 of grid-enabled water heaters activated for
13 use in demand response and thermal stor-
14 age programs annually, the Secretary
15 shall, after opportunity for notice and com-
16 ment, establish procedures to prevent prod-
17 uct diversion for nonprogram purposes.

18 “(E) COMPLIANCE.—

19 “(i) IN GENERAL.—Subparagraphs
20 (A) through (D) shall remain in effect
21 until the Secretary determines under this
22 section that—

23 “(I) grid-enabled water heaters
24 do not require a separate efficiency
25 requirement; or

1 “(II) sales of grid-enabled water
2 heaters exceed by 15 percent or great-
3 er the quantity of grid-enabled water
4 heaters activated for use in demand
5 response and thermal storage pro-
6 grams annually and procedures to
7 prevent product diversion for nonpro-
8 gram purposes would not be adequate
9 to prevent the product diversion.

10 “(ii) EFFECTIVE DATE.—If the Sec-
11 retary exercises the authority described in
12 clause (i) or amends the efficiency require-
13 ment for grid-enabled water heaters, that
14 action will take effect on the date de-
15 scribed in subsection (m)(4)(A)(ii).

16 “(iii) CONSIDERATION.—In carrying
17 out this section with respect to electric
18 water heaters, the Secretary shall consider
19 the impact on thermal storage and demand
20 response programs, including any impact
21 on energy savings, electric bills, peak load
22 reduction, electric reliability, integration of
23 renewable resources, and the environment.

24 “(iv) REQUIREMENTS.—In carrying
25 out this paragraph, the Secretary shall re-

1 quire that grid-enabled water heaters be
 2 equipped with communication capability to
 3 enable the grid-enabled water heaters to
 4 participate in ancillary services programs if
 5 the Secretary determines that the tech-
 6 nology is available, practical, and cost-ef-
 7 fective.”.

8 (b) PROHIBITED ACTS.—Section 332(a) of the En-
 9 ergy Policy and Conservation Act (42 U.S.C. 6302(a)) is
 10 amended—

11 (1) in paragraph (5), by striking “or” at the
 12 end;

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

15 (3) by redesignating the second paragraph (6)
 16 as paragraph (7);

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

20 (5) by adding at the end the following:

21 “(8) for any person—

22 “(A) to activate an activation lock for a
 23 grid-enabled water heater with knowledge that
 24 the grid-enabled water heater is not used as

1 part of an electric thermal storage or demand
2 response program;

3 “(B) to distribute an activation key for a
4 grid-enabled water heater with knowledge that
5 the activation key will be used to activate a
6 grid-enabled water heater that is not used as
7 part of an electric thermal storage or demand
8 response program;

9 “(C) to otherwise enable a grid-enabled
10 water heater to operate at its designed speci-
11 fication and capabilities with knowledge that
12 the grid-enabled water heater is not used as
13 part of an electric thermal storage or demand
14 response program; or

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

18 (c) ENFORCEMENT.—Section 333(a) of the Energy
19 Policy and Conservation Act (42 U.S.C. 6303(a)) is
20 amended—

21 (1) by striking “section 332(a)(5)” and insert-
22 ing “paragraph (5), (6), (7), or (8) of section
23 332(a)”; and

1 (2) by striking “paragraph (1), (2), or (5) of
2 section 332(a)” and inserting “paragraph (1), (2),
3 (5), (6), (7), or (8) of section 332(a)”.

4 (d) INJUNCTIVE ENFORCEMENT.—Section 334 of the
5 Energy Policy and Conservation Act (42 U.S.C. 6304) is
6 amended—

7 (1) in the first sentence, by striking “section
8 332(a)(5)” and inserting “paragraph (5), (6), (7),
9 or (8) of section 332(a)”;

10 (2) in the second sentence, by striking “section
11 332(a)(6)” and inserting “section 332(a)(7)”.

12 **TITLE III—ENERGY EFFICIENT** 13 **GOVERNMENT TECHNOLOGY**

14 **SEC. 301. SHORT TITLE.**

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

17 **SEC. 302. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-** 18 **MATION TECHNOLOGIES.**

19 Subtitle C of title V of the Energy Independence and
20 Security Act of 2007 (Public Law 110–140; 121 Stat.
21 1661) is amended by adding at the end the following:

22 **“SEC. 530. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-** 23 **MATION TECHNOLOGIES.**

24 “(a) DEFINITIONS.—In this section:

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

4 “(2) INFORMATION TECHNOLOGY.—The term
5 ‘information technology’ has the meaning given the
6 term in section 11101 of title 40, United States
7 Code.

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

19 “(c) ADMINISTRATION.—In developing an implemen-
20 tation strategy under subsection (b), each Federal agency
21 shall consider—

22 “(1) advanced metering infrastructure;

23 “(2) energy-efficient data center strategies and
24 methods of increasing asset and infrastructure utili-
25 zation;

1 “(3) advanced power management tools;

2 “(4) building information modeling, including
3 building energy management;

4 “(5) secure telework and travel substitution
5 tools; and

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

9 “(d) PERFORMANCE GOALS.—

10 “(1) IN GENERAL.—Not later than 180 days
11 after the date of enactment of this section, the Di-
12 rector, in consultation with the Secretary, shall es-
13 tablish performance goals for evaluating the efforts
14 of Federal agencies in improving the maintenance,
15 purchase, and use of energy-efficient and energy-sav-
16 ing information technology.

17 “(2) BEST PRACTICES.—The Chief Information
18 Officers Council established under section 3603 of
19 title 44, United States Code, shall recommend best
20 practices for the attainment of the performance
21 goals, which shall include Federal agency consider-
22 ation of the use of—

23 “(A) energy savings performance con-
24 tracting; and

25 “(B) utility energy services contracting.

1 “(e) REPORTS.—

2 “(1) AGENCY REPORTS.—Each Federal agency
3 shall include in the report of the agency under sec-
4 tion 527 a description of the efforts and results of
5 the agency under this section.

6 “(2) OMB GOVERNMENT EFFICIENCY REPORTS
7 AND SCORECARDS.—Effective beginning not later
8 than October 1, 2015, the Director shall include in
9 the annual report and scorecard of the Director re-
10 quired under section 528 a description of the efforts
11 and results of Federal agencies under this section.”.

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

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

15 (1) in subsection (b), by striking paragraph (3);
16 and

17 (2) by striking subsections (c) through (g) and
18 inserting the following:

19 “(c) STAKEHOLDER INVOLVEMENT.—

20 “(1) IN GENERAL.—The Secretary and the Ad-
21 ministrator shall carry out subsection (b) in con-
22 sultation with information technology industry and
23 other key stakeholders, with the goal of producing
24 results that accurately reflect the best knowledge in
25 the most pertinent domains.

1 “(2) REQUIREMENTS.—In carrying out para-
2 graph (1), the Secretary and the Administrator shall
3 pay particular attention to organizations that—

4 “(A) have members with expertise in en-
5 ergy efficiency and in the development, oper-
6 ation, and functionality of data centers, infor-
7 mation technology equipment, and software,
8 such as representatives of hardware manufac-
9 turers, data center operators, and facility man-
10 agers;

11 “(B) obtain and address input from Na-
12 tional Laboratories (as defined in section 3 of
13 the Energy Policy Act of 2005 (42 U.S.C.
14 15801)) institution of higher education, re-
15 search institution, industry association, com-
16 pany, or public interest group with applicable
17 expertise;

18 “(C) follow—

19 “(i) commonly accepted procedures
20 for the development of specifications; and

21 “(ii) accredited standards development
22 processes; and

23 “(D) have a mission to promote energy ef-
24 ficiency for data centers and information tech-
25 nology.

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

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

16 “(1) a comparison and gap analysis of the esti-
17 mates and projections contained in the original re-
18 port with new data regarding the period from 2007
19 through 2014;

20 “(2) an analysis considering the impact of in-
21 formation technologies, including virtualization and
22 cloud computing, in the public and private sectors;

23 “(3) an evaluation of the impact of the com-
24 bination of cloud platforms, mobile devices, social

1 media, and big data on data center energy usage;
2 and

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

5 “(f) DATA CENTER ENERGY PRACTITIONER PRO-
6 GRAM.—

7 “(1) IN GENERAL.—The Secretary, in consulta-
8 tion with key stakeholders and the Director of the
9 Office of Management and Budget, shall maintain a
10 data center energy practitioner program that leads
11 to the certification of energy practitioners qualified
12 to evaluate the energy usage and efficiency opportu-
13 nities in Federal data centers.

14 “(2) EVALUATIONS.—Each Federal agency
15 shall consider having the data centers of the agency
16 evaluated every 4 years by energy practitioners cer-
17 tified pursuant to the data center energy practi-
18 tioner program and whenever practicable using cer-
19 tified practitioners employed by the agency.

20 “(g) OPEN DATA INITIATIVE.—

21 “(1) IN GENERAL.—The Secretary, in consulta-
22 tion with key stakeholders and the Director of the
23 Office of Management and Budget, shall establish
24 an open data initiative for Federal data center en-
25 ergy usage data, with the purpose of making the en-

1 ergy usage data available and accessible in a manner
2 that encourages further data center innovation, opti-
3 mization, and consolidation.

4 “(2) MODEL.—In establishing the initiative
5 under paragraph (1), the Secretary shall consider
6 the use of the online Data Center Maturity Model.

7 “(h) INTERNATIONAL SPECIFICATIONS AND
8 METRICS.—The Secretary, in consultation with key stake-
9 holders, shall actively participate in efforts to harmonize
10 global specifications and metrics for data center energy
11 efficiency.

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

17 “(j) PROTECTION OF PROPRIETARY INFORMATION.—
18 The Secretary and the Administrator shall not disclose
19 any proprietary information or trade secrets provided by
20 any individual or company for the purposes of carrying
21 out this section or the programs and initiatives established
22 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 “signing the contract, the following require-
16 ments are met:

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

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

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.—On completing
 2 the study, the Secretary shall submit to the Com-
 3 mittee on Energy and Natural Resources of the Sen-
 4 ate and the Committee on Energy and Commerce of
 5 the House of Representatives a report on the results
 6 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 Energy Star Portfolio Manager tool of the Environ-
5 mental Protection Agency.

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 Natural Resources of the Senate and the
13 Committee on Energy and Commerce of the House of
14 Representatives a report on the progress made in com-
15 plying with this section.

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