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[Report No. 114-130]

To promote energy savings in residential buildings and industry, and for other purposes.

IN THE SENATE OF THE UNITED STATES

March 11, 2015

Mr. Portman (for himself, Mrs. Shaheen, Ms. Ayotte, Mr. Bennet, Ms. Cantwell, Ms. Collins, Mr. Coons, Mr. Franken, Mr. Hoeven, Mr. Manchin, Ms. Murkowski, Mr. Warner, Mr. Wicker, and Mr. Heller) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

SEPTEMBER 9, 2015
Reported by Ms. Murkowski, with amendments
[Omit the part struck through and insert the part printed in italic]

A BILL

To promote energy savings in residential buildings and industry, 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,

1 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

- 2 (a) SHORT TITLE.—This Act may be cited as the
- 3 "Energy Savings and Industrial Competitiveness Act of
- 4 2015".
- 5 (b) Table of Contents of Contents of
- 6 this Act is as follows:
 - Sec. 1. Short title; table of contents.
 - Sec. 2. Definition of Secretary.

TITLE I—BUILDINGS

Subtitle A—Building Energy Codes

Sec. 101. Greater energy efficiency in building codes.

Subtitle B—Worker Training and Capacity Building

- Sec. 111. Building training and assessment centers.
- Sec. 112. Career skills training.

Subtitle C—School Buildings

Sec. 121. Coordination of energy retrofitting assistance for schools.

Subtitle D—Better Buildings

- Sec. 131. Energy efficiency in Federal and other buildings.
- Sec. 132. Separate spaces with high-performance energy efficiency measures.
- Sec. 133. Tenant star program.

Subtitle E—Energy Information for Commercial Buildings

Sec. 141. Energy information for commercial buildings.

TITLE II—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing Energy Efficiency

- Sec. 201. Purposes.
- Sec. 202. Future of Industry program.
- Sec. 203. Sustainable manufacturing initiative.
- Sec. 204. Conforming amendments.

Subtitle B—Supply Star

Sec. 211. Supply Star.

Subtitle C—Extended Product System Rebate Program

Sec. 221. Extended product system rebate program.

Subtitle D—Transformer Rebate Program

Sec. 231. Energy efficient transformer rebate program.

TITLE III—FEDERAL AGENCY ENERGY EFFICIENCY

- Sec. 301. Energy-efficient and energy-saving information technologies.
- Sec. 302. Availability of funds for design updates.
- Sec. 303. Energy efficient data centers.
- Sec. 304. Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units.

TITLE IV—REGULATORY PROVISIONS

Subtitle A—Third-Party Certification Under Energy Star Program

Sec. 401. Third-party certification under Energy Star program.

Subtitle B—Federal Green Buildings

Sec. 411. High-performance green Federal buildings.

Subtitle C—Water Heaters

Sec. 421. Grid-enabled water heaters.

Subtitle DC—Energy Performance Requirement for Federal Buildings

- Sec. 431421. Energy performance requirement for Federal buildings.
- Sec. 432422. Federal building energy efficiency performance standards; certification system and level for green buildings.
- Sec. 433423. Enhanced energy efficiency underwriting.
- Sec. 441431. Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products.

TITLE V—MISCELLANEOUS

- Sec. 501. Budgetary effects.
- Sec. 502. Advance appropriations required.

1 SEC. 2. DEFINITION OF SECRETARY.

- 2 In this Act, the term "Secretary" means the Sec-
- 3 retary of Energy.

TITLE I—BUILDINGS 1 **Subtitle A—Building Energy Codes** 2 3 SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING 4 CODES. 5 (a) Definitions.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended— 7 8 (1) by striking paragraph (14) and inserting 9 the following: "(14) Model building energy code.—The 10 11 term 'model building energy code' means a voluntary 12 building energy code and standards developed and 13 updated through a consensus process among inter-14 ested persons, such as the IECC or the code used 15 by— "(A) the Council of American Building Of-16 17 ficials, or its legal successor, International Code 18 Council, Inc.; 19 "(B) the American Society of Heating, Re-20 frigerating, and Air-Conditioning Engineers; or 21 other appropriate organizations."; 22 and 23 (2) by adding at the end the following: "(17) IECC.—The term 'IECC' means the 24 International Energy Conservation Code. 25

1	"(18) Indian tribe.—The term 'Indian tribe'
2	has the meaning given the term in section 4 of the
3	Native American Housing Assistance and Self-De-
4	termination Act of 1996 (25 U.S.C. 4103).".
5	(b) STATE BUILDING ENERGY EFFICIENCY
6	Codes.—Section 304 of the Energy Conservation and
7	Production Act (42 U.S.C. 6833) is amended to read as
8	follows:
9	"SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-
10	CIENCY CODES.
11	"(a) In General.—The Secretary shall—
12	"(1) encourage and support the adoption of
13	building energy codes by States, Indian tribes, and,
14	as appropriate, by local governments that meet or
15	exceed the model building energy codes, or achieve
16	equivalent or greater energy savings; and
17	"(2) support full compliance with the State and
18	local codes.
19	"(b) State and Indian Tribe Certification of
20	BUILDING ENERGY CODE UPDATES.—
21	"(1) REVIEW AND UPDATING OF CODES BY
22	EACH STATE AND INDIAN TRIBE.—
23	"(A) IN GENERAL.—Not later than 2 years
24	after the date on which a model building energy
25	code is updated, each State or Indian tribe shall

1	certify whether or not the State or Indian tribe,
2	respectively, has reviewed and updated the en-
3	ergy provisions of the building code of the State
4	or Indian tribe, respectively.
5	"(B) Demonstration.—The certification
6	shall include a demonstration of whether or not
7	the energy savings for the code provisions that
8	are in effect throughout the State or Indian
9	tribal territory meet or exceed—
10	"(i) the energy savings of the updated
11	model building energy code; or
12	"(ii) the targets established under sec-
13	tion $307(b)(2)$.
14	"(C) No model building energy code
15	UPDATE.—If a model building energy code is
16	not updated by a target date established under
17	section 307(b)(2)(D), each State or Indian tribe
18	shall, not later than 2 years after the specified
19	date, certify whether or not the State or Indian
20	tribe, respectively, has reviewed and updated
21	the energy provisions of the building code of the
22	State or Indian tribe, respectively, to meet or
23	exceed the target in section 307(b)(2).

1	"(2) Validation by Secretary.—Not later
2	than 90 days after a State or Indian tribe certifi-
3	cation under paragraph (1), the Secretary shall—
4	"(A) determine whether the code provi-
5	sions of the State or Indian tribe, respectively,
6	meet the criteria specified in paragraph (1);
7	and
8	"(B) if the determination is positive, vali-
9	date the certification.
10	"(c) Improvements in Compliance With Build-
11	ING ENERGY CODES.—
12	"(1) Requirement.—
13	"(A) In general.—Not later than 3 years
14	after the date of a certification under sub-
15	section (b), each State and Indian tribe shall
16	certify whether or not the State and Indian
17	tribe, respectively, has—
18	"(i) achieved full compliance under
19	paragraph (3) with the applicable certified
20	State and Indian tribe building energy
21	code or with the associated model building
22	energy code; or
23	"(ii) made significant progress under
24	paragraph (4) toward achieving compliance
25	with the applicable certified State and In-

1	dian tribe building energy code or with the
2	associated model building energy code.
3	"(B) Repeat certifications.—If the
4	State or Indian tribe certifies progress toward
5	achieving compliance, the State or Indian tribe
6	shall repeat the certification until the State or
7	Indian tribe certifies that the State or Indian
8	tribe has achieved full compliance, respectively.
9	"(2) Measurement of compliance.—A cer-
10	tification under paragraph (1) shall include docu-
11	mentation of the rate of compliance based on—
12	"(A) independent inspections of a random
13	sample of the buildings covered by the code in
14	the preceding year; or
15	"(B) an alternative method that yields an
16	accurate measure of compliance.
17	"(3) ACHIEVEMENT OF COMPLIANCE.—A State
18	or Indian tribe shall be considered to achieve full
19	compliance under paragraph (1) if—
20	"(A) at least 90 percent of building space
21	covered by the code in the preceding year sub-
22	stantially meets all the requirements of the ap-
23	plicable code specified in paragraph (1), or
24	achieves equivalent or greater energy savings
25	level; or

1	"(B) the estimated excess energy use of
2	buildings that did not meet the applicable code
3	specified in paragraph (1) in the preceding
4	year, compared to a baseline of comparable
5	buildings that meet this code, is not more than
6	5 percent of the estimated energy use of all
7	buildings covered by this code during the pre-
8	ceding year.
9	"(4) Significant progress toward
10	ACHIEVEMENT OF COMPLIANCE.—A State or Indian
11	tribe shall be considered to have made significant
12	progress toward achieving compliance for purposes
13	of paragraph (1) if the State or Indian tribe—
14	"(A) has developed and is implementing a
15	plan for achieving compliance during the 8-
16	year-period beginning on the date of enactment
17	of this paragraph, including annual targets for
18	compliance and active training and enforcement
19	programs; and
20	"(B) has met the most recent target under
21	subparagraph (A).
22	"(5) Validation by secretary.—Not later
23	than 90 days after a State or Indian tribe certifi-
24	cation under paragraph (1), the Secretary shall—

1	"(A) determine whether the State or In-
2	dian tribe has demonstrated meeting the cri-
3	teria of this subsection, including accurate
4	measurement of compliance; and
5	"(B) if the determination is positive, vali-
6	date the certification.
7	"(d) States or Indian Tribes That Do Not
8	ACHIEVE COMPLIANCE.—
9	"(1) Reporting.—A State or Indian tribe that
10	has not made a certification required under sub-
11	section (b) or (c) by the applicable deadline shall
12	submit to the Secretary a report on—
13	"(A) the status of the State or Indian tribe
14	with respect to meeting the requirements and
15	submitting the certification; and
16	"(B) a plan for meeting the requirements
17	and submitting the certification.
18	"(2) Federal support.—For any State or In-
19	dian tribe for which the Secretary has not validated
20	a certification by a deadline under subsection (b) or
21	(c), the lack of the certification may be a consider-
22	ation for Federal support authorized under this sec-
23	tion for code adoption and compliance activities.
24	"(3) Local Government.—In any State or
25	Indian tribe for which the Secretary has not vali-

1	dated a certification under subsection (b) or (c), a
2	local government may be eligible for Federal support
3	by meeting the certification requirements of sub-
4	sections (b) and (c).
5	"(4) Annual reports by secretary.—
6	"(A) IN GENERAL.—The Secretary shall
7	annually submit to Congress, and publish in the
8	Federal Register, a report on—
9	"(i) the status of model building en-
10	ergy codes;
11	"(ii) the status of code adoption and
12	compliance in the States and Indian tribes:
13	"(iii) implementation of this section;
14	and
15	"(iv) improvements in energy savings
16	over time as result of the targets estab-
17	lished under section $307(b)(2)$.
18	"(B) Impacts.—The report shall include
19	estimates of impacts of past action under this
20	section, and potential impacts of further action
21	on—
22	"(i) upfront financial and construction
23	costs, cost benefits and returns (using in-
24	vestment analysis), and lifetime energy use
25	for buildings;

1	"(ii) resulting energy costs to individ-
2	uals and businesses; and
3	"(iii) resulting overall annual building
4	ownership and operating costs.
5	"(e) Technical Assistance to States and In-
6	DIAN TRIBES.—The Secretary shall provide technical as-
7	sistance to States and Indian tribes to implement the goals
8	and requirements of this section, including procedures and
9	technical analysis for States and Indian tribes—
10	"(1) to improve and implement State residential
11	and commercial building energy codes;
12	"(2) to demonstrate that the code provisions of
13	the States and Indian tribes achieve equivalent or
14	greater energy savings than the model building en-
15	ergy codes and targets;
16	"(3) to document the rate of compliance with a
17	building energy code; and
18	"(4) to otherwise promote the design and con-
19	struction of energy efficient buildings.
20	"(f) Availability of Incentive Funding.—
21	"(1) IN GENERAL.—The Secretary shall provide
22	incentive funding to States and Indian tribes—
23	"(A) to implement the requirements of this
24	section;

1	"(B) to improve and implement residential
2	and commercial building energy codes, including
3	increasing and verifying compliance with the
4	codes and training of State, tribal, and local
5	building code officials to implement and enforce
6	the codes; and
7	"(C) to promote building energy efficiency
8	through the use of the codes.
9	"(2) Additional funding.—Additional fund-
10	ing shall be provided under this subsection for im-
11	plementation of a plan to achieve and document full
12	compliance with residential and commercial building
13	energy codes under subsection (c)—
14	"(A) to a State or Indian tribe for which
15	the Secretary has validated a certification under
16	subsection (b) or (c); and
17	"(B) in a State or Indian tribe that is not
18	eligible under subparagraph (A), to a local gov-
19	ernment that is eligible under this section.
20	"(3) Training.—Of the amounts made avail-
21	able under this subsection, the State or Indian tribe
22	may use amounts required, but not to exceed
23	\$750,000 for a State, to train State and local build-
24	ing code officials to implement and enforce codes de-
25	scribed in paragraph (2).

1	"(4) Local governments.—States may share
2	grants under this subsection with local governments
3	that implement and enforce the codes.
4	"(g) Stretch Codes and Advanced Stand-
5	ARDS.—
6	"(1) In General.—The Secretary shall provide
7	technical and financial support for the development
8	of stretch codes and advanced standards for residen-
9	tial and commercial buildings for use as—
10	"(A) an option for adoption as a building
11	energy code by local, tribal, or State govern-
12	ments; and
13	"(B) guidelines for energy-efficient build-
14	ing design.
15	"(2) Targets.—The stretch codes and ad-
16	vanced standards shall be designed—
17	"(A) to achieve substantial energy savings
18	compared to the model building energy codes;
19	and
20	"(B) to meet targets under section 307(b),
21	if available, at least 3 to 6 years in advance of
22	the target years.
23	"(h) Studies.—The Secretary, in consultation with
24	building science experts from the National Laboratories
25	and institutions of higher education, designers and build-

- 1 ers of energy-efficient residential and commercial build-
- 2 ings, code officials, and other stakeholders, shall under-
- 3 take a study of the feasibility, impact, economics, and
- 4 merit of—
- 5 "(1) code improvements that would require that
- 6 buildings be designed, sited, and constructed in a
- 7 manner that makes the buildings more adaptable in
- 8 the future to become zero-net-energy after initial
- 9 construction, as advances are achieved in energy-sav-
- ing technologies;
- 11 "(2) code procedures to incorporate measured
- lifetimes, not just first-year energy use, in trade-offs
- and performance calculations; and
- 14 "(3) legislative options for increasing energy
- savings from building energy codes, including addi-
- tional incentives for effective State and local action,
- and verification of compliance with and enforcement
- of a code other than by a State or local government.
- 19 "(i) Effect on Other Laws.—Nothing in this sec-
- 20 tion or section 307 supersedes or modifies the application
- 21 of sections 321 through 346 of the Energy Policy and
- 22 Conservation Act (42 U.S.C. 6291 et seq.).
- 23 "(j) Authorization of Appropriations.—There
- 24 are authorized to be appropriated to carry out this section

1	and section 307 \$200,000,000, to remain available until
2	expended.".
3	(c) Federal Building Energy Efficiency
4	STANDARDS.—Section 305 of the Energy Conservation
5	and Production Act (42 U.S.C. 6834) is amended by strik-
6	ing "voluntary building energy code" each place it appears
7	in subsections (a)(2)(B) and (b) and inserting "model
8	building energy code".
9	(d) Model Building Energy Codes.—Section 307
10	of the Energy Conservation and Production Act (42
11	U.S.C. 6836) is amended to read as follows:
12	"SEC. 307. SUPPORT FOR MODEL BUILDING ENERGY
	CODEC
13	CODES.
13 14	"(a) In General.—The Secretary shall support the
14	"(a) In General.—The Secretary shall support the
14 15	"(a) In General.—The Secretary shall support the updating of model building energy codes.
14 15 16	"(a) In General.—The Secretary shall support the updating of model building energy codes. "(b) Targets.—
14 15 16 17	"(a) In General.—The Secretary shall support the updating of model building energy codes. "(b) Targets.— "(1) In General.—The Secretary shall sup-
14 15 16 17	"(a) IN GENERAL.—The Secretary shall support the updating of model building energy codes. "(b) Targets.— "(1) IN GENERAL.—The Secretary shall support the updating of the model building energy codes
14 15 16 17 18	"(a) In General.—The Secretary shall support the updating of model building energy codes. "(b) Targets.— "(1) In General.—The Secretary shall support the updating of the model building energy codes to enable the achievement of aggregate energy sav-
14 15 16 17 18 19 20	"(a) In General.—The Secretary shall support the updating of model building energy codes. "(b) Targets.— "(1) In General.—The Secretary shall support the updating of the model building energy codes to enable the achievement of aggregate energy savings targets established under paragraph (2).
14 15 16 17 18 19 20 21	"(a) In General.—The Secretary shall support the updating of model building energy codes. "(b) Targets.— "(1) In General.—The Secretary shall support the updating of the model building energy codes to enable the achievement of aggregate energy savings targets established under paragraph (2). "(2) Targets.—
14 15 16 17 18 19 20 21	"(a) In General.—The Secretary shall support the updating of model building energy codes. "(b) Targets.— "(1) In General.—The Secretary shall support the updating of the model building energy codes to enable the achievement of aggregate energy savings targets established under paragraph (2). "(2) Targets.— "(A) In General.—The Secretary shall

1	support the updating of model building energy
2	codes by establishing one or more aggregate en-
3	ergy savings targets to achieve the purposes of
4	this section.
5	"(B) Separate targets.—The Secretary
6	may establish separate targets for commercial
7	and residential buildings.
8	"(C) Baselines.—The baseline for updat-
9	ing model building energy codes shall be the
10	2009 IECC for residential buildings and
11	ASHRAE Standard 90.1–2010 for commercial
12	buildings.
13	"(D) Specific years.—
14	"(i) In general.—Targets for spe-
15	cific years shall be established and revised
16	by the Secretary through rulemaking and
17	coordinated with nationally recognized code
18	and standards developers at a level that—
19	"(I) is at the maximum level of
20	energy efficiency that is techno-
21	logically feasible and life-cycle cost ef-
22	fective, while accounting for the eco-
23	nomic considerations under paragraph
24	(4);

1	"(II) is higher than the preceding
2	target; and
3	"(III) promotes the achievement
4	of commercial and residential high-
5	performance buildings through high
6	performance energy efficiency (within
7	the meaning of section 401 of the En-
8	ergy Independence and Security Act
9	of 2007 (42 U.S.C. 17061)).
10	"(ii) Initial targets.—Not later
11	than 1 year after the date of enactment of
12	this clause, the Secretary shall establish
13	initial targets under this subparagraph.
14	"(iii) Different target years.—
15	Subject to clause (i), prior to the applica-
16	ble year, the Secretary may set a later tar-
17	get year for any of the model building en-
18	ergy codes described in subparagraph (A)
19	if the Secretary determines that a target
20	cannot be met.
21	"(iv) SMALL BUSINESS.—When estab-
22	lishing targets under this paragraph
23	through rulemaking, the Secretary shall
24	ensure compliance with the Small Business
25	Regulatory Enforcement Fairness Act of

1	1996 (5 U.S.C. 601 note; Public Law 104–
2	121).
3	"(3) Appliance standards and other fac-
4	TORS AFFECTING BUILDING ENERGY USE.—In es-
5	tablishing building code targets under paragraph
6	(2), the Secretary shall develop and adjust the tar-
7	gets in recognition of potential savings and costs re-
8	lating to—
9	"(A) efficiency gains made in appliances,
10	lighting, windows, insulation, and building enve-
11	lope sealing;
12	"(B) advancement of distributed genera-
13	tion and on-site renewable power generation
14	technologies;
15	"(C) equipment improvements for heating,
16	cooling, and ventilation systems;
17	"(D) building management systems and
18	SmartGrid technologies to reduce energy use;
19	and
20	"(E) other technologies, practices, and
21	building systems that the Secretary considers
22	appropriate regarding building plug load and
23	other energy uses.
24	"(4) Economic considerations.—In estab-
25	lishing and revising building code targets under

1	paragraph (2), the Secretary shall consider the eco-
2	nomic feasibility of achieving the proposed targets
3	established under this section and the potential costs
4	and savings for consumers and building owners, in-
5	cluding a return on investment analysis.
6	"(c) Technical Assistance to Model Building
7	ENERGY CODE-SETTING AND STANDARD DEVELOPMENT
8	Organizations.—
9	"(1) IN GENERAL.—The Secretary shall, on a
10	timely basis, provide technical assistance to model
11	building energy code-setting and standard develop-
12	ment organizations consistent with the goals of this
13	section.
14	"(2) Assistance .—The assistance shall in-
15	clude, as requested by the organizations, technical
16	assistance in—
17	"(A) evaluating code or standards pro-
18	posals or revisions;
19	"(B) building energy analysis and design
20	tools;
21	"(C) building demonstrations;
22	"(D) developing definitions of energy use
23	intensity and building types for use in model
24	building energy codes to evaluate the efficiency
25	impacts of the model building energy codes:

1	"(E) performance-based standards;
2	"(F) evaluating economic considerations
3	under subsection (b)(4); and
4	"(G) developing model building energy
5	codes by Indian tribes in accordance with tribal
6	law.
7	"(3) Amendment proposals.—The Secretary
8	may submit timely model building energy code
9	amendment proposals to the model building energy
10	code-setting and standard development organiza-
11	tions, with supporting evidence, sufficient to enable
12	the model building energy codes to meet the targets
13	established under subsection (b)(2).
14	"(4) Analysis methodology.—The Secretary
15	shall make publicly available the entire calculation
16	methodology (including input assumptions and data)
17	used by the Secretary to estimate the energy savings
18	of code or standard proposals and revisions.
19	"(d) Determination.—
20	"(1) REVISION OF MODEL BUILDING ENERGY
21	CODES.—If the provisions of the IECC or ASHRAE
22	Standard 90.1 regarding building energy use are re-
23	vised, the Secretary shall make a preliminary deter-
24	mination not later than 90 days after the date of the
25	revision, and a final determination not later than 15

1	months after the date of the revision, on whether or
2	not the revision will—
3	"(A) improve energy efficiency in buildings
4	compared to the existing model building energy
5	code; and
6	"(B) meet the applicable targets under
7	subsection (b)(2).
8	"(2) Codes or standards not meeting tar-
9	GETS.—
10	"(A) IN GENERAL.—If the Secretary
11	makes a preliminary determination under para-
12	graph (1)(B) that a code or standard does not
13	meet the targets established under subsection
14	(b)(2), the Secretary may at the same time pro-
15	vide the model building energy code or standard
16	developer with proposed changes that would re-
17	sult in a model building energy code that meets
18	the targets and with supporting evidence, tak-
19	ing into consideration—
20	"(i) whether the modified code is tech-
21	nically feasible and life-cycle cost effective;
22	"(ii) available appliances, technologies,
23	materials, and construction practices; and
24	"(iii) the economic considerations
25	under subsection (b)(4).

1	"(B) Incorporation of changes.—
2	"(i) In general.—On receipt of the
3	proposed changes, the model building en-
4	ergy code or standard developer shall have
5	an additional 270 days to accept or reject
6	the proposed changes of the Secretary to
7	the model building energy code or standard
8	for the Secretary to make a final deter-
9	mination.
10	"(ii) Final determination.—A
11	final determination under paragraph (1)
12	shall be on the modified model building en-
13	ergy code or standard.
14	"(e) Administration.—In carrying out this section,
15	the Secretary shall—
16	"(1) publish notice of targets and supporting
17	analysis and determinations under this section in the
18	Federal Register to provide an explanation of and
19	the basis for such actions, including any supporting
20	modeling, data, assumptions, protocols, and cost-
21	benefit analysis, including return on investment; and
22	"(2) provide an opportunity for public comment
23	on targets and supporting analysis and determina-
24	tions under this section.

1	"(f) Voluntary Codes and Standards.—Not-
2	withstanding any other provision of this section, any
3	model building code or standard established under section
4	304 shall not be binding on a State, local government, or
5	Indian tribe as a matter of Federal law.".
6	Subtitle B—Worker Training and
7	Capacity Building
8	SEC. 111. BUILDING TRAINING AND ASSESSMENT CENTERS.
9	(a) In General.—The Secretary shall provide
10	grants to institutions of higher education (as defined in
11	section 101 of the Higher Education Act of 1965 (20
12	U.S.C. 1001)) and Tribal Colleges or Universities (as de-
13	fined in section 316(b) of that Act (20 U.S.C. 1059c(b)))
14	to establish building training and assessment centers—
15	(1) to identify opportunities for optimizing en-
16	ergy efficiency and environmental performance in
17	buildings;
18	(2) to promote the application of emerging con-
19	cepts and technologies in commercial and institu-
20	tional buildings;
21	(3) to train engineers, architects, building sci-
22	entists, building energy permitting and enforcement
23	officials, and building technicians in energy-efficient
24	design and operation;

- 1 (4) to assist institutions of higher education 2 and Tribal Colleges or Universities in training build-3 ing technicians;
 - (5) to promote research and development for the use of alternative energy sources and distributed generation to supply heat and power for buildings, particularly energy-intensive buildings; and
 - (6) to coordinate with and assist State-accredited technical training centers, community colleges, Tribal Colleges or Universities, and local offices of the National Institute of Food and Agriculture and ensure appropriate services are provided under this section to each region of the United States.

(b) COORDINATION AND NONDUPLICATION.—

- (1) IN GENERAL.—The Secretary shall coordinate the program with the industrial research and assessment centers program and with other Federal programs to avoid duplication of effort.
- (2) Collocation.—To the maximum extent practicable, building, training, and assessment centers established under this section shall be collocated with Industrial Assessment Centers.
- 23 (c) AUTHORIZATION OF APPROPRIATIONS.—There is 24 authorized to be appropriated to carry out this section 25 \$10,000,000, to remain available until expended.

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1 SEC. 112. CAREER SKILLS TRAINING.

- 2 (a) IN GENERAL.—The Secretary shall pay grants to
- 3 eligible entities described in subsection (b) to pay the Fed-
- 4 eral share of associated career skills training programs
- 5 under which students concurrently receive classroom in-
- 6 struction and on-the-job training for the purpose of ob-
- 7 taining an industry-related certification to install energy
- 8 efficient buildings technologies, including technologies de-
- 9 scribed in section 307(b)(3) of the Energy Conservation
- 10 and Production Act (42 U.S.C. 6836(b)(3)).
- 11 (b) Eligibility.—To be eligible to obtain a grant
- 12 under subsection (a), an entity shall be a nonprofit part-
- 13 nership described in section 171(e)(2)(B)(ii) of the Work-
- 14 force Investment Act of 1998 (29 U.S.C.
- 15 2916(e)(2)(B)(ii)).
- 16 (c) Federal Share.—The Federal share of the cost
- 17 of carrying out a career skills training program described
- 18 in subsection (a) shall be 50 percent.
- 19 (d) Authorization of Appropriations.—There is
- 20 authorized to be appropriated to carry out this section
- 21 \$10,000,000, to remain available until expended.

22 Subtitle C—School Buildings

- 23 SEC. 121. COORDINATION OF ENERGY RETROFITTING AS-
- 24 SISTANCE FOR SCHOOLS.
- 25 (a) Definition of School.—In this section, the
- 26 term "school" means—

- 1 (1) an elementary school or secondary school
 2 (as defined in section 9101 of the Elementary and
 3 Secondary Education Act of 1965 (20 U.S.C.
 4 7801));
 5 (2) an institution of higher education (as defined in section 102(a) of the Higher Education Act
- 8 (3) a school of the defense dependents' edu-9 cation system under the Defense Dependents' Edu-10 cation Act of 1978 (20 U.S.C. 921 et seq.) or estab-11 lished under section 2164 of title 10, United States 12 Code;

of 1965 (20 U.S.C. 1002(a));

- (4) a school operated by the Bureau of Indian
 Affairs;
- 15 (5) a tribally controlled school (as defined in 16 section 5212 of the Tribally Controlled Schools Act 17 of 1988 (25 U.S.C. 2511)); and
- 18 (6) a Tribal College or University (as defined in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059e(b))).
- 21 (b) Designation of Lead Agency.—The Sec-
- 22 retary, acting through the Office of Energy Efficiency and
- 23 Renewable Energy, shall act as the lead Federal agency
- 24 for coordinating and disseminating information on exist-
- 25 ing Federal programs and assistance that may be used

7

- 1 to help initiate, develop, and finance energy efficiency, re-
- 2 newable energy, and energy retrofitting projects for
- 3 schools.
- 4 (c) REQUIREMENTS.—In carrying out coordination
- 5 and outreach under subsection (b), the Secretary shall—
- 6 (1) in consultation and coordination with the
- 7 appropriate Federal agencies, carry out a review of
- 8 existing programs and financing mechanisms (in-
- 9 cluding revolving loan funds and loan guarantees)
- available in or from the Department of Agriculture,
- the Department of Energy, the Department of Edu-
- cation, the Department of the Treasury, the Internal
- Revenue Service, the Environmental Protection
- 14 Agency, and other appropriate Federal agencies with
- jurisdiction over energy financing and facilitation
- that are currently used or may be used to help ini-
- tiate, develop, and finance energy efficiency, renew-
- able energy, and energy retrofitting projects for
- schools;
- 20 (2) establish a Federal cross-departmental col-
- 21 laborative coordination, education, and outreach ef-
- fort to streamline communication and promote avail-
- able Federal opportunities and assistance described
- in paragraph (1), for energy efficiency, renewable

1	energy, and energy retrofitting projects that enables
2	States, local educational agencies, and schools—
3	(A) to use existing Federal opportunities
4	more effectively; and
5	(B) to form partnerships with Governors,
6	State energy programs, local educational, finan-
7	cial, and energy officials, State and local gov-
8	ernment officials, nonprofit organizations, and
9	other appropriate entities, to support the initi-
10	ation of the projects;
11	(3) provide technical assistance for States, local
12	educational agencies, and schools to help develop
13	and finance energy efficiency, renewable energy, and
14	energy retrofitting projects—
15	(A) to increase the energy efficiency of
16	buildings or facilities;
17	(B) to install systems that individually
18	generate energy from renewable energy re-
19	sources;
20	(C) to establish partnerships to leverage
21	economies of scale and additional financing
22	mechanisms available to larger clean energy ini-
23	tiatives; or
24	(D) to promote—

1	(i) the maintenance of health, environ-
2	mental quality, and safety in schools, in-
3	cluding the ambient air quality, through
4	energy efficiency, renewable energy, and
5	energy retrofit projects; and
6	(ii) the achievement of expected en-
7	ergy savings and renewable energy produc-
8	tion through proper operations and main-
9	tenance practices;
10	(4) develop and maintain a single online re-
11	source website with contact information for relevant
12	technical assistance and support staff in the Office
13	of Energy Efficiency and Renewable Energy for
14	States, local educational agencies, and schools to ef-
15	fectively access and use Federal opportunities and
16	assistance described in paragraph (1) to develop en-
17	ergy efficiency, renewable energy, and energy retro-
18	fitting projects; and
19	(5) establish a process for recognition of schools
20	that—
21	(A) have successfully implemented energy
22	efficiency, renewable energy, and energy retro-
23	fitting projects; and

1	(B) are willing to serve as resources for
2	other local educational agencies and schools to
3	assist initiation of similar efforts.
4	(d) Report.—Not later than 180 days after the date
5	of enactment of this Act, the Secretary shall submit to
6	Congress a report describing the implementation of this
7	section.
8	Subtitle D—Better Buildings
9	SEC. 131. ENERGY EFFICIENCY IN FEDERAL AND OTHER
10	BUILDINGS.
11	(a) Definitions.—In this section:
12	(1) Administrator.—The term "Adminis-
13	trator" means the Administrator of General Serv-
14	ices.
15	(2) Cost-effective energy efficiency
16	MEASURE.—The terms "cost-effective energy effi-
17	ciency measure" and "measure" mean any building
18	product, material, equipment, or service and the in-
19	stalling, implementing, or operating thereof, that
20	provides energy savings in an amount that is not
21	less than the cost of such installing, implementing,
22	or operating.
23	(b) Model Provisions, Policies, and Best Prac-
24	TICES.—

(1) In GENERAL.—Not later than 180 days after the date of enactment of this Act, the Administrator, in consultation with the Secretary and after providing the public with an opportunity for notice and comment, shall develop model 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 to encourage building owners and tenants to collaborate to invest in such measures.

- (B) Use of Model Provisions.—The Administrator may use the model 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 leasing provisions developed under this subsection, along with explanatory materials, to encourage build-

- 1 ing owners and tenants in the private sector to
 2 use such provisions and materials.
- 3 REALTY SERVICES.—The Administrator 4 shall develop policies and practices to implement 5 cost-effective energy efficiency measures for the realty services provided by the Administrator to Federal 6 7 agencies (or other clients of the Administrator), in-8 cluding periodic training of appropriate Federal em-9 ployees and contractors on how to identify and 10 evaluate those measures.
- 11 (4) STATE AND LOCAL ASSISTANCE.—The Ad-12 ministrator, in consultation with the Secretary, shall 13 make available model leasing provisions and best 14 practices developed under this subsection to State, 15 county, and municipal governments to manage 16 owned and leased building space in accordance with 17 the goal of encouraging investment in all cost-effec-18 tive energy efficiency measures.

19 SEC. 132. SEPARATE SPACES WITH HIGH-PERFORMANCE

- 20 **ENERGY EFFICIENCY MEASURES.**
- 21 Subtitle B of title IV of the Energy Independence and
- 22 Security Act of 2007 (42 U.S.C. 17081 et seq.) is amend-
- 23 ed by adding at the end the following:

"SEC. 424. SEPARATE SPACES WITH HIGH-PERFORMANCE

1

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) ease studies reporting economic and
6	energy saving 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	SEC. 133. TENANT STAR PROGRAM.
20	Subtitle B of title IV of the Energy Independence and
21	Security Act of 2007 (42 U.S.C. 17081 et seq.) (as
22	amended by section 132) is amended by adding at the end
23	the following:
24	"SEC. 425. TENANT STAR PROGRAM.
25	"(a) Definitions.—In this section:

1	"(1) High-performance energy efficiency
2	MEASURE.—The term 'high-performance energy effi-
3	ciency measure' has the meaning given the term in
4	section 424.
5	"(2) SEPARATE SPACES.—The term 'separate
6	spaces' has the meaning given the term in section
7	424.
8	"(b) TENANT STAR.—The Administrator of the Envi-
9	ronmental Protection Agency, in consultation with the
10	Secretary of Energy, shall develop a voluntary program
11	within the Energy Star program established by section
12	324A of the Energy Policy and Conservation Act (42
13	U.S.C. 6294a), which may be known as Tenant Star, to
14	promote energy efficiency in separate spaces leased by ten-
15	ants or otherwise occupied within commercial buildings.
16	"(c) Expanding Survey Data.—The Secretary of
17	Energy, acting through the Administrator of the Energy
18	Information Administration, shall—
19	"(1) collect, through each Commercial Build-
20	ings Energy Consumption Survey of the Energy In-
21	formation Administration that is conducted after the
22	date of enactment of this section, data on—
23	"(A) categories of building occupancy that
24	are known to consume significant quantities of

1	energy, such as occupancy by data centers,
2	trading floors, and restaurants; and
3	"(B) other aspects of the property, build-
4	ing operation, or building occupancy determined
5	by the Administrator of the Energy Information
6	Administration, in consultation with the Admin-
7	istrator of the Environmental Protection Agen-
8	cy, to be relevant in lowering energy consump-
9	tion;
10	"(2) with respect to the first Commercial Build-
11	ings Energy Consumption Survey conducted after
12	the date of enactment of this section, to the extent
13	full compliance with the requirements of paragraph
14	(1) is not feasible, conduct activities to develop the
15	capability to collect such data and begin to collect
16	such data; and
17	"(3) make data collected under paragraphs (1)
18	and (2) available to the public in aggregated form
19	and provide such data, and any associated results, to
20	the Administrator of the Environmental Protection
21	Agency for use in accordance with subsection (d).
22	"(d) RECOGNITION OF OWNERS AND TENANTS.—
23	"(1) Occupancy-based recognition.—Not
24	later than 1 year after the date on which sufficient
25	data is received pursuant to subsection (e), the Ad-

1	ministrator of the Environmental Protection Agency
2	shall, following an opportunity for public notice and
3	comment
4	"(A) in a manner similar to the Energy
5	Star rating system for commercial buildings,
6	develop policies and procedures to recognize
7	tenants in commercial buildings that voluntarily
8	achieve high levels of energy efficiency in sepa-
9	rate spaces;
10	"(B) establish building occupancy cat-
11	egories eligible for Tenant Star recognition
12	based on the data collected under subsection (e)
13	and any other appropriate data sources; and
14	"(C) consider other forms of recognition
15	for commercial building tenants or other occu-
16	pants that lower energy consumption in sepa-
17	rate spaces.
18	"(2) Design- and construction-based rec-
19	ognition.—After the study required by section
20	424(b) is completed, the Administrator of the Envi-
21	ronmental Protection Agency, in consultation with
22	the Secretary and following an opportunity for pub-
23	lie notice and comment, may develop a voluntary
24	program to recognize commercial building owners

and tenants that use high-performance energy effi-

25

1	ciency measures in the design and construction of
2	separate spaces.".
3	Subtitle E—Energy Information for
4	Commercial Buildings
5	SEC. 141. ENERGY INFORMATION FOR COMMERCIAL BUILD
6	INGS.
7	(a) Requirement of Benchmarking and Disclo-
8	SURE FOR LEASING BUILDINGS WITHOUT ENERGY STAR
9	Labels.—Section 435(b)(2) of the Energy Independence
10	and Security Act of 2007 (42 U.S.C. 17091(b)(2)) is
11	amended—
12	(1) by striking "paragraph (2)" and inserting
13	"paragraph (1)"; and
14	(2) by striking "signing the contract," and all
15	that follows through the period at the end and in-
16	serting the following:
17	"signing the contract, the following requirements are
18	met:
19	"(A) The space is renovated for all energy
20	efficiency and conservation improvements that
21	would be cost effective over the life of the lease,
22	including improvements in lighting, windows,
23	and heating, ventilation, and air conditioning
24	systems.

1	"(B)(i) Subject to clause (ii), the space is
2	benchmarked under a nationally recognized, on-
3	line, free benchmarking program, with public
4	disclosure, unless the space is a space for which
5	owners cannot access whole building utility con-
6	sumption data, including spaces—
7	"(I) that are located in States with
8	privacy laws that provide that utilities shall
9	not provide such aggregated information to
10	multitenant building owners; and
11	"(II) for which tenants do not provide
12	energy consumption information to the
13	commercial building owner in response to a
14	request from the building owner.
15	"(ii) A Federal agency that is a tenant of
16	the space shall provide to the building owner, or
17	authorize the owner to obtain from the utility,
18	the energy consumption information of the
19	space for the benchmarking and disclosure re-
20	quired by this subparagraph.".
21	(b) DEPARTMENT OF ENERGY STUDY.—
22	(1) IN GENERAL.—Not later than 2 years after
23	the date of enactment of this Act, the Secretary
24	shall complete a study, with opportunity for public
25	comment—

1	(A) on the impact of—
2	(i) State and local performance
3	benchmarking and disclosure policies, and
4	any associated building efficiency policies,
5	for commercial and multifamily buildings;
6	and
7	(ii) programs and systems in which
8	utilities provide aggregated information re-
9	garding whole building energy consumption
10	and usage information to owners of multi-
11	tenant commercial, residential, and mixed-
12	use buildings;
13	(B) that identifies best practice policy ap-
14	proaches studied under subparagraph (A) that
15	have resulted in the greatest improvements in
16	building energy efficiency; and
17	(C) that considers—
18	(i) compliance rates and the benefits
19	and costs of the policies and programs on
20	building owners, utilities, tenants, and
21	other parties;
22	(ii) utility practices, programs, and
23	systems that provide aggregated energy
24	consumption information to multitenant
25	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 televisions
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 eyber-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 Con-
3	gress a report on the results of the study.
4	(c) Creation and Maintenance of Databases.—
5	(1) In GENERAL.—Not later than 18 months
6	after the date of enactment of this Act and following
7	opportunity for public notice and comment, the Sec-
8	retary, in coordination with other relevant agencies
9	shall, to earry out the purpose described in para-
10	graph (2)—
11	(A) assess existing databases; and
12	(B) as necessary—
13	(i) modify and maintain existing data
14	bases; or
15	(ii) create and maintain a new data
16	base platform.
17	(2) Purpose.—The maintenance of existing
18	databases or creation of a new database platform
19	under paragraph (1) shall be for the purpose of stor-
20	ing and making available public energy-related infor-
21	mation on commercial and multifamily buildings, in
22	cluding —
23	(A) data provided under Federal, State
24	local, and other laws or programs regarding

1	building benchmarking and energy information
2	disclosure;
3	(B) buildings that have received energy
4	ratings and certifications; and
5	(C) energy-related information on buildings
6	provided voluntarily by the owners of the build-
7	ings, in an anonymous form, unless the owner
8	provides otherwise.
9	(d) Competitive Awards.—Based on the results of
10	the research for the portion of the study described in sub-
11	section (b)(1)(Λ)(ii), and with criteria developed following
12	public notice and comment, the Secretary may make com-
13	petitive awards to utilities, utility regulators, and utility
14	partners to develop and implement effective and promising
15	programs to provide aggregated whole building energy
16	$\frac{\text{consumption information to multitenant building owners.}}{}$
17	(e) INPUT FROM STAKEHOLDERS.—The Secretary
18	shall seek input from stakeholders to maximize the effec-
19	tiveness of the actions taken under this section.
20	(f) REPORT.—Not later than 2 years after the date
21	of enactment of this Act, and every 2 years thereafter,
22	the Secretary shall submit to Congress a report on the
23	progress made in complying with this section.
24	(g) Authorization of Appropriations.—There is
25	authorized to be appropriated to earry out subsection (b)

1	\$2,500,000 for each of fiscal years 2015 through 2019,
2	to remain available until expended.
3	TITLE II—INDUSTRIAL EFFI-
4	CIENCY AND COMPETITIVE-
5	NESS
6	Subtitle A—Manufacturing Energy
7	Efficiency
8	SEC. 201. PURPOSES.
9	The purposes of this subtitle are—
10	(1) to reform and reorient the industrial effi-
11	ciency programs of the Department of Energy;
12	(2) to establish a clear and consistent authority
13	for industrial efficiency programs of the Depart-
14	ment;
15	(3) to accelerate the deployment of technologies
16	and practices that will increase industrial energy ef-
17	ficiency and improve productivity;
18	(4) to accelerate the development and dem-
19	onstration of technologies that will assist the deploy-
20	ment goals of the industrial efficiency programs of
21	the Department and increase manufacturing effi-
22	ciency;
23	(5) to stimulate domestic economic growth and
24	improve industrial productivity and competitiveness;
25	and

1 (6) to strengthen partnerships between Federal 2 and State governmental agencies and the private 3 and academic sectors. SEC. 202. FUTURE OF INDUSTRY PROGRAM. 5 (a) In General.—Section 452 of the Energy Inde-6 pendence and Security Act of 2007 (42 U.S.C. 17111) is amended by striking the section heading and inserting the 8 following: "FUTURE OF INDUSTRY PROGRAM". 9 (b) Definition of Energy Service Provider.— Section 452(a) of the Energy Independence and Security 10 Act of 2007 (42 U.S.C. 17111(a)) is amended— 12 (1) by redesignating paragraphs (3) through 13 (5) as paragraphs (4) through (6), respectively; and 14 (2) by inserting after paragraph (2): 15 "(3) Energy service provider.—The term 16 'energy service provider' means any business pro-17 viding technology or services to improve the energy 18 efficiency, water efficiency, power factor, or load 19 management of a manufacturing site or other indus-20 trial process in an energy-intensive industry, or any 21 utility operating under a utility energy service 22 project.". 23 (c) Industrial Research and Assessment Cen-TERS.—Section 452(e) of the Energy Independence and

Security Act of 2007 (42 U.S.C. 17111(e)) is amended—

1	(1) by redesignating paragraphs (1) through
2	(5) as subparagraphs (A) through (E), respectively,
3	and indenting appropriately;
4	(2) by striking "The Secretary" and inserting
5	the following:
6	"(1) IN GENERAL.—The Secretary";
7	(3) in subparagraph (A) (as redesignated by
8	paragraph (1)), by inserting before the semicolon at
9	the end the following: ", including assessments of
10	sustainable manufacturing goals and the implemen-
11	tation of information technology advancements for
12	supply chain analysis, logistics, system monitoring,
13	industrial and manufacturing processes, and other
14	purposes"; and
15	(4) by adding at the end the following:
16	"(2) Coordination.—
17	"(A) IN GENERAL.—To increase the value
18	and capabilities of the industrial research and
19	assessment centers, the centers shall—
20	"(i) coordinate with Manufacturing
21	Extension Partnership Centers of the Na-
22	tional Institute of Standards and Tech-
23	nology;
24	"(ii) coordinate with the Building
25	Technologies Program of the Department

1	of Energy to provide building assessment
2	services to manufacturers;
3	"(iii) increase partnerships with the
4	National Laboratories of the Department
5	of Energy to leverage the expertise and
6	technologies of the National Laboratories
7	for national industrial and manufacturing
8	needs;
9	"(iv) increase partnerships with en-
10	ergy service providers and technology pro-
11	viders to leverage private sector expertise
12	and accelerate deployment of new and ex-
13	isting technologies and processes for en-
14	ergy efficiency, power factor, and load
15	management;
16	"(v) identify opportunities for reduc-
17	ing greenhouse gas emissions; and
18	"(vi) promote sustainable manufac-
19	turing practices for small- and medium-
20	sized manufacturers.
21	"(3) Outreach.—The Secretary shall provide
22	funding for—
23	"(A) outreach activities by the industrial
24	research and assessment centers to inform
25	small- and medium-sized manufacturers of the

1	information, technologies, and services avail-
2	able; and
3	"(B) coordination activities by each indus-
4	trial research and assessment center to leverage
5	efforts with—
6	"(i) Federal and State efforts;
7	"(ii) the efforts of utilities and energy
8	service providers;
9	"(iii) the efforts of regional energy ef-
10	ficiency organizations; and
11	"(iv) the efforts of other industrial re-
12	search and assessment centers.
13	"(4) Workforce training.—
14	"(A) IN GENERAL.—The Secretary shall
15	pay the Federal share of associated internship
16	programs under which students work with or
17	for industries, manufacturers, and energy serv-
18	ice providers to implement the recommendations
19	of industrial research and assessment centers.
20	"(B) FEDERAL SHARE.—The Federal
21	share of the cost of carrying out internship pro-
22	grams described in subparagraph (A) shall be
23	50 percent.
24	"(5) Small business loans.—The Adminis-
25	trator of the Small Business Administration shall, to

- 1 the maximum extent practicable, expedite consider-
- 2 ation of applications from eligible small business
- 3 concerns for loans under the Small Business Act (15
- 4 U.S.C. 631 et seq.) to implement recommendations
- 5 of industrial research and assessment centers estab-
- 6 lished under paragraph (1).
- 7 "(6) Advanced manufacturing steering
- 8 COMMITTEE.—The Secretary shall establish an advi-
- 9 sory steering committee to provide recommendations
- to the Secretary on planning and implementation of
- the Advanced Manufacturing Office of the Depart-
- ment of Energy.".
- 13 SEC. 203. SUSTAINABLE MANUFACTURING INITIATIVE.
- (a) In General.—Part E of title III of the Energy
- 15 Policy and Conservation Act (42 U.S.C. 6341) is amended
- 16 by adding at the end the following:
- 17 "SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.
- 18 "(a) In General.—As part of the Office of Energy
- 19 Efficiency and Renewable Energy, the Secretary, on the
- 20 request of a manufacturer, shall conduct onsite technical
- 21 assessments to identify opportunities for—
- 22 "(1) maximizing the energy efficiency of indus-
- trial processes and cross-cutting systems;
- 24 "(2) preventing pollution and minimizing waste;

- 1 "(3) improving efficient use of water in manu-
- 2 facturing processes;
- 3 "(4) conserving natural resources; and
- 4 "(5) achieving such other goals as the Secretary
- 5 determines to be appropriate.
- 6 "(b) Coordination.—The Secretary shall carry out
- 7 the initiative in coordination with the private sector and
- 8 appropriate agencies, including the National Institute of
- 9 Standards and Technology, to accelerate adoption of new
- 10 and existing technologies and processes that improve en-
- 11 ergy efficiency.
- 12 "(c) Research and Development Program for
- 13 Sustainable Manufacturing and Industrial Tech-
- 14 NOLOGIES AND PROCESSES.—As part of the industrial ef-
- 15 ficiency programs of the Department of Energy, the Sec-
- 16 retary shall carry out a joint industry-government partner-
- 17 ship program to research, develop, and demonstrate new
- 18 sustainable manufacturing and industrial technologies and
- 19 processes that maximize the energy efficiency of industrial
- 20 plants, reduce pollution, and conserve natural resources.".
- 21 (b) Table of Contents of
- 22 the Energy Policy and Conservation Act (42 U.S.C. prec.
- 23 6201) is amended by adding at the end of the items relat-
- 24 ing to part E of title III the following:

[&]quot;Sec. 376. Sustainable manufacturing initiative.".

SEC. 204. CONFORMING AMENDMENTS.

- 2 (a) Section 106 of the Energy Policy Act of 2005 (42)
- 3 U.S.C. 15811) is repealed.
- 4 (b) Sections 131, 132, 133, 2103, and 2107 of the
- 5 Energy Policy Act of 1992 (42 U.S.C. 6348, 6349, 6350,
- 6 13453, 13456) are repealed.
- 7 (c) Section 2101(a) of the Energy Policy Act of 1992
- 8 (42 U.S.C. 13451(a)) is amended in the third sentence
- 9 by striking "sections 2102, 2103, 2104, 2105, 2106,
- 10 2107, and 2108" and inserting "sections 2102, 2104,
- 11 2105, 2106, and 2108 of this Act and section 376 of the
- 12 Energy Policy and Conservation Act,".

13 Subtitle B—Supply Star

- 14 SEC. 211. SUPPLY STAR.
- 15 The Energy Policy and Conservation Act is amended
- 16 by inserting after section 324A (42 U.S.C. 6294a) the fol-
- 17 lowing:
- 18 "SEC. 324B. SUPPLY STAR PROGRAM.
- 19 "(a) In General.—There is established within the
- 20 Department of Energy a Supply Star program to identify
- 21 and promote practices, recognize companies, and, as ap-
- 22 propriate, recognize products that use highly efficient sup-
- 23 ply chains in a manner that conserves energy, water, and
- 24 other resources.
- 25 "(b) Coordination.—In carrying out the program
- 26 described in subsection (a), the Secretary shall—

1	"(1) consult with other appropriate agencies;
2	and
3	"(2) coordinate efforts with the Energy Star
4	program established under section 324A.
5	"(c) Duties.—In carrying out the Supply Star pro-
6	gram described in subsection (a), the Secretary shall—
7	"(1) promote practices, recognize companies,
8	and, as appropriate, recognize products that comply
9	with the Supply Star program as the preferred prac-
10	tices, companies, and products in the marketplace
11	for maximizing supply chain efficiency;
12	"(2) work to enhance industry and public
13	awareness of the Supply Star program;
14	"(3) collect and disseminate data on supply
15	chain energy resource consumption;
16	"(4) develop and disseminate metrics, proc-
17	esses, and analytical tools (including software) for
18	evaluating supply chain energy resource use;
19	"(5) develop guidance at the sector level for im-
20	proving supply chain efficiency;
21	"(6) work with domestic and international orga-
22	nizations to harmonize approaches to analyzing sup-
23	ply chain efficiency, including the development of a
24	consistent set of tools, templates, calculators, and
25	databases: and

1	"(7) work with industry, including small busi-
2	nesses, to improve supply chain efficiency through
3	activities that include—
4	"(A) developing and sharing best practices;
5	and
6	"(B) providing opportunities to benchmark
7	supply chain efficiency.
8	"(d) Evaluation.—In any evaluation of supply
9	chain efficiency carried out by the Secretary with respect
10	to a specific product, the Secretary shall consider energy
11	consumption and resource use throughout the entire
12	lifecycle of a product, including production, transport,
13	packaging, use, and disposal.
14	"(e) Grants and Incentives.—
15	"(1) In general.—The Secretary may award
16	grants or other forms of incentives on a competitive
17	basis to eligible entities, as determined by the Sec-
18	retary, for the purposes of—
19	"(A) studying supply chain energy resource
20	efficiency; and
21	"(B) demonstrating and achieving reduc-
22	tions in the energy resource consumption of
23	commercial products through changes and im-
24	provements to the production supply and dis-
25	tribution chain of the products.

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"(2) Use of information.—Any information

2	or data generated as a result of the grants or incen-
3	tives described in paragraph (1) shall be used to in-
4	form the development of the Supply Star Program
5	"(f) Training.—The Secretary shall use funds to
6	support professional training programs to develop and
7	communicate methods, practices, and tools for improving
8	supply chain efficiency.
9	"(g) Effect of Outsourcing of American
10	Jobs.—For purposes of this section, the outsourcing of
11	American jobs in the production of a product shall not
12	count as a positive factor in determining supply chain effi-
13	ciency.
14	"(h) AUTHORIZATION OF APPROPRIATIONS.—There
15	is authorized to be appropriated to carry out this section
16	\$10,000,000 for the period of fiscal years 2015 through
17	2024.".
18	Subtitle C—Extended Product
19	System Rebate Program
20	SEC. 221. EXTENDED PRODUCT SYSTEM REBATE PROGRAM
21	(a) Definitions.—In this section:
22	(1) ELECTRIC MOTOR.—The term "electric
23	motor" has the meaning given the term in section
24	431.12 of title 10, Code of Federal Regulations (as
25	in effect on the date of enactment of this Act).

1	(2) ELECTRONIC CONTROL.—The term "elec-
2	tronic control" means—
3	(A) a power converter; or
4	(B) a combination of a power circuit and
5	control circuit included on 1 chassis.
6	(3) Extended product system.—The term
7	"extended product system" means an electric motor
8	and any required associated electronic control and
9	driven load that—
10	(A) offers variable speed or multispeed op-
11	eration;
12	(B) offers partial load control that reduces
13	input energy requirements (as measured in kilo-
14	watt-hours) as compared to identified base lev-
15	els set by the Secretary; and
16	(C)(i) has greater than 1 horsepower; and
17	(ii) uses an extended product system tech-
18	nology, as determined by the Secretary.
19	(4) Qualified extended product sys-
20	TEM.—
21	(A) IN GENERAL.—The term "qualified ex-
22	tended product system" means an extended
23	product system that—
24	(i) includes an electric motor and an
25	electronic control; and

1	(ii) reduces the input energy (as
2	measured in kilowatt-hours) required to
3	operate the extended product system by
4	not less than 5 percent, as compared to
5	identified base levels set by the Secretary.
6	(B) Inclusions.—The term "qualified ex-
7	tended product system" includes commercial or
8	industrial machinery or equipment that—
9	(i)(I) did not previously make use of
10	the extended product system prior to the
11	redesign described in subclause (II); and
12	(II) incorporates an extended product
13	system that has greater than 1 horsepower
14	into redesigned machinery or equipment;
15	and
16	(ii) was previously used prior to, and
17	was placed back into service during, cal-
18	endar year 2016 or 2017.
19	(b) Establishment.—Not later than 180 days after
20	the date of enactment of this Act, the Secretary shall es-
21	tablish a program to provide rebates for expenditures
22	made by qualified entities for the purchase or installation
23	of a qualified extended product system.
24	(c) QUALIFIED ENTITIES.—

1	(1) ELIGIBILITY REQUIREMENTS.—A qualified
2	entity under this section shall be—
3	(A) in the case of a qualified extended
4	product system described in subsection
5	(a)(4)(A), the purchaser of the qualified ex-
6	tended product that is installed; and
7	(B) in the case of a qualified extended
8	product system described in subsection
9	(a)(4)(B), the manufacturer of the commercial
10	or industrial machinery or equipment that in-
11	corporated the extended product system into
12	that machinery or equipment.
13	(2) APPLICATION.—To be eligible to receive a
14	rebate under this section, a qualified entity shall
15	submit to the Secretary—
16	(A) an application in such form, at such
17	time, and containing such information as the
18	Secretary may require; and
19	(B) a certification that includes dem-
20	onstrated evidence—
21	(i) that the entity is a qualified entity;
22	and
23	(ii)(I) in the case of a qualified entity
24	described in paragraph (1)(A)—

1	(aa) that the qualified entity in-
2	stalled the qualified extended product
3	system during the 2 fiscal years fol-
4	lowing the date of enactment of this
5	Act;
6	(bb) that the qualified extended
7	product system meets the require-
8	ments of subsection (a)(4)(A); and
9	(cc) showing the serial number,
10	manufacturer, and model number
11	from the nameplate of the installed
12	motor of the qualified entity on which
13	the qualified extended product system
14	was installed; or
15	(II) in the case of a qualified entity
16	described in paragraph (1)(B), dem-
17	onstrated evidence—
18	(aa) that the qualified extended
19	product system meets the require-
20	ments of subsection (a)(4)(B); and
21	(bb) showing the serial number,
22	manufacturer, and model number
23	from the nameplate of the installed
24	motor of the qualified entity with

1	which the extended product system is
2	integrated.
3	(d) Authorized Amount of Rebate.—
4	(1) In general.—The Secretary may provide
5	to a qualified entity a rebate in an amount equal to
6	the product obtained by multiplying—
7	(A) an amount equal to the sum of the
8	nameplate rated horsepower of—
9	(i) the electric motor to which the
10	qualified extended product system is at-
11	tached; and
12	(ii) the electronic control; and
13	(B) \$25.
14	(2) Maximum aggregate amount.—A quali-
15	fied entity shall not be entitled to aggregate rebates
16	under this section in excess of \$25,000 per calendar
17	year.
18	(e) AUTHORIZATION OF APPROPRIATIONS.—There is
19	authorized to be appropriated to carry out this section
20	\$5,000,000 for each of the first 2 full fiscal years following
21	the date of enactment of this Act, to remain available until
22	expended.

Subtitle D—Transformer Rebate Program

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3	SEC. 231. ENERGY EFFICIENT TRANSFORMER REBATE PRO-
4	GRAM.
5	(a) DEFINITIONS.—In this section:
6	(1) QUALIFIED ENERGY EFFICIENT TRANS-
7	FORMER.—The term "qualified energy efficient
8	transformer" means a transformer that meets or ex-
9	ceeds the applicable energy conservation standards
10	described in the tables in subsection (b)(2) and
11	paragraphs (1) and (2) of subsection (c) of section
12	431.196 of title 10, Code of Federal Regulations (as
13	in effect on the date of enactment of this Act).
14	(2) Qualified energy inefficient trans-
15	FORMER.—The term "qualified energy inefficient
16	transformer" means a transformer with an equal
17	number of phases and capacity to a transformer de-
18	scribed in any of the tables in subsection (b)(2) and
19	paragraphs (1) and (2) of subsection (c) of section
20	431.196 of title 10, Code of Federal Regulations (as
21	in effect on the date of enactment of this Act)
22	that—
23	(A) does not meet or exceed the applicable
24	energy conservation standards described in
25	paragraph (1); and

- 1 (B)(i) was manufactured between January
 2 1, 1985, and December 31, 2006, for a trans3 former with an equal number of phases and ca4 pacity as a transformer described in the table
 5 in subsection (b)(2) of section 431.196 of title
 6 10, Code of Federal Regulations (as in effect on
 7 the date of enactment of this Act); or
 - (ii) was manufactured between January 1, 1990, and December 31, 2009, for a transformer with an equal number of phases and capacity as a transformer described in the table in paragraph (1) or (2) of subsection (c) of that section (as in effect on the date of enactment of this Act).
 - (3) QUALIFIED ENTITY.—The term "qualified entity" means an owner of industrial or manufacturing facilities, commercial buildings, or multifamily residential buildings, a utility, or an energy service company that fulfills the requirements of subsection (d).
- 21 (b) ESTABLISHMENT.—Not later than 90 days after 22 the date of enactment of this Act, the Secretary shall es-23 tablish a program to provide rebates to qualified entities 24 for expenditures made by the qualified entity for the re-

1	placement of a qualified energy inefficient transformer
2	with a qualified energy efficient transformer.
3	(c) REQUIREMENTS.—To be eligible to receive a re-
4	bate under this section, an entity shall submit to the Sec-
5	retary an application in such form, at such time, and con-
6	taining such information as the Secretary may require, in-
7	cluding demonstrated evidence—
8	(1) that the entity purchased a qualified energy
9	efficient transformer;
10	(2) of the core loss value of the qualified energy
11	efficient transformer;
12	(3) of the age of the qualified energy inefficient
13	transformer being replaced;
14	(4) of the core loss value of the qualified energy
15	inefficient transformer being replaced—
16	(A) as measured by a qualified professional
17	or verified by the equipment manufacturer, as
18	applicable; or
19	(B) for transformers described in sub-
20	section (a)(2)(B)(i), as selected from a table of
21	default values as determined by the Secretary
22	in consultation with applicable industry; and
23	(5) that the qualified energy inefficient trans-
24	former has been permanently decommissioned and
25	seranned

1	(d) Authorized Amount of Rebate.—The
2	amount of a rebate provided under this section shall be—
3	(1) for a 3-phase or single-phase transformer
4	with a capacity of not less than 10 and not greater
5	than 2,500 kilovolt-amperes, twice the amount equal
6	to the difference in Watts between the core loss
7	value (as measured in accordance with paragraphs
8	(2) and (4) of subsection (e)) of—
9	(A) the qualified energy inefficient trans-
10	former; and
11	(B) the qualified energy efficient trans-
12	former; or
13	(2) for a transformer described in subsection
14	(a)(2)(B)(i), the amount determined using a table of
15	default rebate values by rated transformer output,
16	as measured in kilovolt-amperes, as determined by
17	the Secretary in consultation with applicable indus-
18	try.
19	(e) Authorization of Appropriations.—There is
20	authorized to be appropriated to carry out this section
21	\$5,000,000 for each of fiscal years 2016 and 2017, to re-
22	main available until expended.
23	(f) TERMINATION OF EFFECTIVENESS.—The author-
24	ity provided by this section terminates on December 31,
25	2017.

TITLE III—FEDERAL AGENCY 1 **ENERGY EFFICIENCY** 2 SEC. 301. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-4 MATION TECHNOLOGIES. 5 Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is amended— 7 (1) by redesignating the second subsection (f) 8 (relating to large capital energy investments) as sub-9 section (g); and 10 (2) by adding at the end the following: 11 "(h) Federal Implementation Strategy for ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION 13 TECHNOLOGIES.— 14 "(1) Definitions.—In this subsection: "(A) DIRECTOR.—The term 15 'Director' means the Director of the Office of Manage-16 17 ment and Budget. 18 "(B) Information Technology.—The 19 term 'information technology' has the meaning 20 given the term in section 11101 of title 40, 21 United States Code. 22 "(2)DEVELOPMENT OF **IMPLEMENTATION** 23 STRATEGY.—Not later than 1 year after the date of 24 enactment of this subsection, each Federal agency 25 shall collaborate with the Director to develop an im-

1	plementation strategy (including best-practices and
2	measurement and verification techniques) for the
3	maintenance, purchase, and use by the Federal
4	agency of energy-efficient and energy-saving infor-
5	mation technologies.
6	"(3) Administration.—In developing an im-
7	plementation strategy, each Federal agency shall
8	consider—
9	"(A) advanced metering infrastructure;
10	"(B) energy efficient data center strategies
11	and methods of increasing asset and infrastruc-
12	ture utilization;
13	"(C) advanced power management tools;
14	"(D) building information modeling, in-
15	cluding building energy management; and
16	"(E) secure telework and travel substi-
17	tution tools.
18	"(4) Performance Goals.—
19	"(A) IN GENERAL.—Not later than Sep-
20	tember 30, 2015, the Director, in consultation
21	with the Secretary, shall establish performance
22	goals for evaluating the efforts of Federal agen-
23	cies in improving the maintenance, purchase,
24	and use of energy-efficient and energy-saving
25	information technology systems.

1	"(B) BEST PRACTICES.—The Chief Infor-
2	mation Officers Council established under sec-
3	tion 3603 of title 44, United States Code, shall
4	supplement the performance goals established
5	under this paragraph with recommendations on
6	best practices for the attainment of the per-
7	formance goals, to include a requirement for
8	agencies to consider the use of—
9	"(i) energy savings performance con-
10	tracting; and
11	"(ii) utility energy services con-
12	tracting.
13	"(5) Reports.—
14	"(A) AGENCY REPORTS.—Each Federal
15	agency subject to the requirements of this sub-
16	section shall include in the report of the agency
17	under section 527 of the Energy Independence
18	and Security Act of 2007 (42 U.S.C. 17143) a
19	description of the efforts and results of the
20	agency under this subsection.
21	"(B) OMB GOVERNMENT EFFICIENCY RE-
22	PORTS AND SCORECARDS.—Effective beginning
23	not later than October 1, 2015, the Director
24	shall include in the annual report and scorecard
25	of the Director required under section 528 of

1	the Energy Independence and Security Act of
2	2007 (42 U.S.C. 17144) a description of the ef-
3	forts and results of Federal agencies under this
4	subsection.
5	"(C) Use of existing reporting struc-
6	TURES.—The Director may require Federal
7	agencies to submit any information required to
8	be submitted under this subsection though re-
9	porting structures in use as of the date of en-
10	actment of the Energy Savings and Industrial
11	Competitiveness Act of 2015.".
12	SEC. 302. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.
13	Section 3307 of title 40, United States Code, is
14	amended—
15	(1) by redesignating subsections (d) through (h)
16	as subsections (e) through (i), respectively; and
17	(2) by inserting after subsection (c) the fol-
18	lowing:
19	"(d) Availability of Funds for Design Up-
20	DATES.—
21	"(1) In general.—Subject to paragraph (2),
22	for any project for which congressional approval is
23	received under subsection (a) and for which the de-
24	sign has been substantially completed but construc-
25	tion has not begun, the Administrator of General

1	Services may use appropriated funds to update the
2	project design to meet applicable Federal building
3	energy efficiency standards established under section
4	305 of the Energy Conservation and Production Act
5	(42 U.S.C. 6834) and other requirements estab-
6	lished under section 3312.
7	"(2) LIMITATION.—The use of funds under
8	paragraph (1) shall not exceed 125 percent of the
9	estimated energy or other cost savings associated
10	with the updates as determined by a life cycle cost
11	analysis under section 544 of the National Energy
12	Conservation Policy Act (42 U.S.C. 8254).".
13	SEC. 303. ENERGY EFFICIENT DATA CENTERS.
14	Section 453 of the Energy Independence and Security
15	Act of 2007 (42 U.S.C. 17112) is amended—
16	(1) in subsection (b)—
l6 l7	(1) in subsection (b)—(A) in paragraph (2)(D)(iv), by striking
17	(A) in paragraph (2)(D)(iv), by striking
17 18	(A) in paragraph (2)(D)(iv), by striking "the organization" and inserting "an organiza-
17 18 19	(A) in paragraph (2)(D)(iv), by striking "the organization" and inserting "an organization"; and
17 18 19 20	 (A) in paragraph (2)(D)(iv), by striking "the organization" and inserting "an organization"; and (B) by striking paragraph (3); and
17 18 19 20 21	 (A) in paragraph (2)(D)(iv), by striking "the organization" and inserting "an organization"; and (B) by striking paragraph (3); and (2) by striking subsections (c) through (g) and
17 18 19 20 21	 (A) in paragraph (2)(D)(iv), by striking "the organization" and inserting "an organization"; and (B) by striking paragraph (3); and (2) by striking subsections (c) through (g) and inserting the following:

1	sultation with the information technology industry
2	and other key stakeholders, with the goal of pro-
3	ducing results that accurately reflect the best knowl-
4	edge in the most pertinent domains.
5	"(2) Considerations.—In carrying out con-
6	sultation described in paragraph (1), the Secretary
7	and the Administrator shall pay particular attention
8	to organizations that—
9	"(A) have members with expertise in en-
10	ergy efficiency and in the development, oper-
11	ation, and functionality of data centers, infor-
12	mation technology equipment, and software, in-
13	cluding representatives of hardware manufac-
14	turers, data center operators, and facility man-
15	agers;
16	"(B) obtain and address input from the
17	National Laboratories (as that term is defined
18	in section 2 of the Energy Policy Act of 2005
19	(42 U.S.C. 15801)) or any institution of higher
20	education, research institution, industry asso-
21	ciation, company, or public interest group with
22	applicable expertise;
23	"(C) follow—
24	"(i) commonly accepted procedures
25	for the development of specifications; and

1	"(ii) accredited standards development
2	processes; or
3	"(D) have a mission to promote energy ef-
4	ficiency for data centers and information tech-
5	nology.
6	"(d) Measurements and Specifications.—The
7	Secretary and the Administrator shall consider and assess
8	the adequacy of the specifications, measurements, and
9	benchmarks described in subsection (b) for use by the
10	Federal Energy Management Program, the Energy Star
11	Program, and other efficiency programs of the Depart-
12	ment of Energy or the Environmental Protection Agency.
13	"(e) Study.—The Secretary, in consultation with the
14	Administrator, not later than 18 months after the date
15	of enactment of the Energy Savings and Industrial Com-
16	petitiveness Act of 2015, shall make available to the public
17	an update to the report submitted to Congress pursuant
18	to section 1 of the Act of December 20, 2006 (Public Law
19	109–431; 120 Stat. 2920), entitled 'Report to Congress
20	on Server and Data Center Energy Efficiency' and dated
21	August 2, 2007, that provides—
22	"(1) a comparison and gap analysis of the esti-
23	mates and projections contained in the original re-
24	port with new data regarding the period from 2007
25	through 2014:

- 1 "(2) an analysis considering the impact of in-2 formation technologies, including virtualization and 3 cloud computing, in the public and private sectors; "(3) an evaluation of the impact of the com-4 5 bination of cloud platforms, mobile devices, social 6 media, and big data on data center energy usage; 7 and "(4) updated projections and recommendations 8 9 for best practices through fiscal year 2020. 10 "(f) Data Center Energy Practitioner Pro-11 GRAM.— "(1) IN GENERAL.—The Secretary, in consulta-12 13 tion with key stakeholders and the Director of the 14 Office of Management and Budget, shall maintain a
 - tion with key stakeholders and the Director of the Office of Management and Budget, shall maintain a data center energy practitioner program that provides for the certification of energy practitioners qualified to evaluate the energy usage and efficiency opportunities in Federal data centers.
 - "(2) EVALUATIONS.—Each Federal agency shall consider having the data centers of the agency evaluated once every 4 years by energy practitioners certified pursuant to the program, whenever practicable using certified practitioners employed by the agency.
- 25 "(g) Open Data Initiative.—

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- 1 "(1) IN GENERAL.—The Secretary, in consulta2 tion with key stakeholders and the Director of the
 3 Office of Management and Budget, shall establish
 4 an open data initiative for Federal data center en5 ergy usage data, with the purpose of making the
 6 data available and accessible in a manner that en-
- 7 courages further data center innovation, optimiza-
- 8 tion, and consolidation.
- 9 "(2) CONSIDERATION.—In establishing the ini-10 tiative under paragraph (1), the Secretary shall con-11 sider using the online Data Center Maturity Model.
- 12 "(h) International Specifications and
- 13 Metrics.—The Secretary, in consultation with key stake-
- 14 holders, shall actively participate in efforts to harmonize
- 15 global specifications and metrics for data center energy
- 16 efficiency.
- 17 "(i) Data Center Utilization Metric.—The Sec-
- 18 retary, in collaboration with key stakeholders, shall facili-
- 19 tate in the development of an efficiency metric that meas-
- 20 ures the energy efficiency of a data center (including
- 21 equipment and facilities).
- 22 "(j) Protection of Proprietary Information.—
- 23 The Secretary and the Administrator shall not disclose
- 24 any proprietary information or trade secrets provided by
- 25 any individual or company for the purposes of carrying

1	out this section or the programs and initiatives established
2	under this section.".
3	SEC. 304. BUDGET-NEUTRAL DEMONSTRATION PROGRAM
4	FOR ENERGY AND WATER CONSERVATION IM-
5	PROVEMENTS AT MULTIFAMILY RESIDEN-
6	TIAL UNITS.
7	(a) Establishment.—The Secretary of Housing
8	and Urban Development (referred to in this section as the
9	"Secretary") shall establish a demonstration program
10	under which, during the period beginning on the date of
11	enactment of this Act, and ending on September 30, 2018,
12	the Secretary may enter into budget-neutral, performance-
13	based agreements that result in a reduction in energy or
14	water costs with such entities as the Secretary determines
15	to be appropriate under which the entities shall carry out
16	projects for energy or water conservation improvements at
17	not more than 20,000 residential units in multifamily
18	buildings participating in—
19	(1) the project-based rental assistance program
20	under section 8 of the United States Housing Act of
21	1937 (42 U.S.C. 1437f), other than assistance pro-
22	vided under section 8(o) of that Act;
23	(2) the supportive housing for the elderly pro-
24	gram under section 202 of the Housing Act of 1959
25	(12 U.S.C. 1701q); or

1	(3) the supportive housing for persons with dis-
2	abilities program under section 811(d)(2) of the
3	Cranston-Gonzalez National Affordable Housing Act
4	(42 U.S.C. 8013(d)(2)).
5	(b) Requirements.—
6	(1) Payments contingent on savings.—
7	(A) IN GENERAL.—The Secretary shall
8	provide to an entity a payment under an agree-
9	ment under this section only during applicable
10	years for which an energy or water cost savings
11	is achieved with respect to the applicable multi-
12	family portfolio of properties, as determined by
13	the Secretary, in accordance with subparagraph
14	(B).
15	(B) Payment methodology.—
16	(i) In General.—Each agreement
17	under this section shall include a pay-for-
18	success provision—
19	(I) that will serve as a payment
20	threshold for the term of the agree-
21	ment; and
22	(II) pursuant to which the De-
23	partment of Housing and Urban De-
24	velopment shall share a percentage of
25	the savings at a level determined by

1	the Secretary that is sufficient to
2	cover the administrative costs of car-
3	rying out this section.
4	(ii) Limitations.—A payment made
5	by the Secretary under an agreement
6	under this section shall—
7	(I) be contingent on documented
8	utility savings; and
9	(II) not exceed the utility savings
10	achieved by the date of the payment,
11	and not previously paid, as a result of
12	the improvements made under the
13	agreement.
14	(C) Third party verification.—Savings
15	payments made by the Secretary under this sec-
16	tion shall be based on a measurement and
17	verification protocol that includes at least—
18	(i) establishment of a weather-normal-
19	ized and occupancy-normalized utility con-
20	sumption baseline established preretrofit;
21	(ii) annual third party confirmation of
22	actual utility consumption and cost for
23	owner-paid utilities;
24	(iii) annual third party validation of
25	the tenant utility allowances in effect dur-

1	ing the applicable year and vacancy rates
2	for each unit type; and
3	(iv) annual third party determination
4	of savings to the Secretary.
5	(2) TERM.—The term of an agreement under
6	this section shall be not longer than 12 years.
7	(3) Entity eligibility.—The Secretary
8	shall—
9	(A) establish a competitive process for en-
10	tering into agreements under this section; and
11	(B) enter into such agreements only with
12	entities that demonstrate significant experience
13	relating to—
14	(i) financing and operating properties
15	receiving assistance under a program de-
16	scribed in subsection (a);
17	(ii) oversight of energy and water con-
18	servation programs, including oversight of
19	contractors; and
20	(iii) raising capital for energy and
21	water conservation improvements from
22	charitable organizations or private inves-
23	tors.
24	(4) Geographical diversity.—Each agree-
25	ment entered into under this section shall provide

1	for the inclusion of properties with the greatest fea-
2	sible regional and State variance.
3	(c) Plan and Reports.—
4	(1) Plan.—Not later than 90 days after the
5	date of enactment of this Act, the Secretary shall
6	submit to the Committees on Appropriations of the
7	House of Representatives and the Senate a detailed
8	plan for the implementation of this section.
9	(2) Reports.—Not later than 1 year after the
10	date of enactment of this Act, and annually there-
11	after, the Secretary shall—
12	(A) conduct an evaluation of the program
13	under this section; and
14	(B) submit to Congress a report describing
15	each evaluation conducted under subparagraph
16	(A).
17	(d) Funding.—For each fiscal year during which an
18	agreement under this section is in effect, the Secretary
19	may use to carry out this section any funds appropriated
20	to the Secretary for the renewal of contracts under a pro-
21	gram described in subsection (a).

1	TITLE IV—REGULATORY
2	PROVISIONS
3	Subtitle A—Third-Party Certifi-
4	cation Under Energy Star Pro-
5	gram
6	SEC. 401. THIRD-PARTY CERTIFICATION UNDER ENERGY
7	STAR PROGRAM.
8	Section 324A of the Energy Policy and Conservation
9	Act (42 U.S.C. 6294a) is amended by adding at the end
10	the following:
11	"(e) Third-Party Certification.—
12	"(1) In general.—Subject to paragraph (2),
13	not later than 180 days after the date of enactment
14	of this subsection, the Administrator shall revise the
15	certification requirements for the labeling of con-
16	sumer, home, and office electronic products for pro-
17	gram partners that have complied with all require-
18	ments of the Energy Star program for a period of
19	at least 18 months.
20	"(2) Administration.—In the case of a pro-
21	gram partner described in paragraph (1), the new
22	requirements under paragraph (1)—
23	"(A) shall not require third-party certifi-
24	cation for a product to be listed; but

1 "(B) may require that test data and other 2 product information be submitted to facilitate 3 product listing and performance verification for 4 a sample of products.

"(3) Third parties.—Nothing in this subsection prevents the Administrator from using third parties in the course of the administration of the Energy Star program.

"(4) TERMINATION.—

- "(A) IN GENERAL.—Subject to subparagraph (B), an exemption from third-party certification provided to a program partner under paragraph (1) shall terminate if the program partner is found to have violated program requirements with respect to at least 2 separate models during a 2-year period.
- "(B) Resumption.—A termination for a program partner under subparagraph (A) shall cease if the program partner complies with all Energy Star program requirements for a period of at least 3 years.".

1	Subtitle B—Federal Green
2	Buildings
3	SEC. 411. HIGH-PERFORMANCE GREEN FEDERAL BUILD-
4	INGS.
5	Section 436(h) of the Energy Independence and Se-
6	curity Act of 2007 (42 U.S.C. 17092(h)) is amended—
7	(1) in the subsection heading, by striking "Sys-
8	TEM" and inserting "Systems";
9	(2) by striking paragraph (1) and inserting the
10	following:
11	"(1) In general.—Based on an ongoing re-
12	view, the Federal Director shall identify and shall
13	provide to the Secretary pursuant to section
14	305(a)(3)(D) of the Energy Conservation and Pro-
15	duction Act (42 U.S.C. 6834(a)(3)(D)), a list of
16	those certification systems that the Director identi-
17	fies as the most likely to encourage a comprehensive
18	and environmentally sound approach to certification
19	of green buildings."; and
20	(3) in paragraph (2)—
21	(A) in the matter preceding subparagraph
22	(A), by striking "system" and inserting "sys-
23	tems'';
24	(B) by striking subparagraph (A) and in-
25	serting the following:

1	"(A) an ongoing review provided to the
2	Secretary pursuant to section 305(a)(3)(D) of
3	the Energy Conservation and Production Act
4	(42 U.S.C. 6834(a)(3)(D)), which shall—
5	"(i) be carried out by the Federal Di-
6	rector to compare and evaluate standards;
7	and
8	"(ii) allow any developer or adminis-
9	trator of a rating system or certification
10	system to be included in the review;";
11	(C) in subparagraph (E)(v), by striking
12	"and" after the semicolon at the end;
13	(D) in subparagraph (F), by striking the
14	period at the end and inserting a semicolon;
15	and
16	(E) by adding at the end the following:
17	"(G) a finding that, for all credits address-
18	ing grown, harvested, or mined materials, the
19	system does not discriminate against the use of
20	domestic products that have obtained certifi-
21	cations of responsible sourcing; and
22	"(H) a finding that the system incor-
23	porates life-cycle assessment as a credit path-
24	way.''.

Subtitle C—Water Heaters

2	SEC. 421. GRID-ENABLED WATER HEATERS.
3	Part B of title III of the Energy Policy and Conserva-
4	tion Act is amended—
5	(1) in section 325(e) (42 U.S.C. 6295(e)), by
6	adding at the end the following:
7	"(6) Additional standards for grid-en-
8	ABLED WATER HEATERS.—
9	"(A) DEFINITIONS.—In this paragraph:
10	"(i) ACTIVATION LOCK.—The term
11	'activation lock' means a control mecha-
12	nism (either a physical device directly on
13	the water heater or a control system inte-
14	grated into the water heater) that is locked
15	by default and contains a physical, soft-
16	ware, or digital communication that must
17	be activated with an activation key to en-
18	able the product to operate at its designed
19	specifications and capabilities and without
20	which activation the product will provide
21	not greater than 50 percent of the rated
22	first hour delivery of hot water certified by
23	the manufacturer.
24	"(ii) GRID-ENABLED WATER HEAT-
25	ER.—The term 'grid-enabled water heater'

1	means an electric resistance water heater
2	that—
3	"(I) has a rated storage tank vol-
4	ume of more than 75 gallons;
5	"(II) is manufactured on or after
6	April 16, 2015;
7	"(III) has
8	"(aa) an energy factor of
9	not less than 1.061 minus the
10	product obtained by multi-
11	plying—
12	"(AA) the rated storage
13	volume of the tank, ex-
14	pressed in gallons; and
15	"(BB) 0.00168; or
16	"(bb) an equivalent alter-
17	native standard prescribed by the
18	Secretary and developed pursu-
19	ant to paragraph $(5)(E)$;
20	"(IV) is equipped at the point of
21	manufacture with an activation lock;
22	and
23	"(V) bears a permanent label ap-
24	plied by the manufacturer that—

1	"(aa) is made of material
2	not adversely affected by water;
3	"(bb) is attached by means
4	of non-water-soluble adhesive;
5	and
6	"(ce) advises purchasers and
7	end-users of the intended and ap-
8	propriate use of the product with
9	the following notice printed in
10	16.5 point Arial Narrow Bold
11	font:
12	"'IMPORTANT INFORMATION: This water heater is
13	intended only for use as part of an electric thermal storage
14	or demand response program. It will not provide adequate
15	hot water unless enrolled in such a program and activated
16	by your utility company or another program operator.
17	Confirm the availability of a program in your local area
18	before purchasing or installing this product.'.
19	"(B) Requirement.—The manufacturer
20	or private labeler shall provide the activation
21	key for a grid-enabled water heater only to a
22	utility or other company that operates an elec-
23	trie thermal storage or demand response pro-
24	gram that uses such a grid-enabled water heat-
25	er.

1	"(C) REPORTS.—
2	"(i) Manufacturers.—The Sec-
3	retary shall require each manufacturer of
4	grid-enabled water heaters to report to the
5	Secretary annually the quantity of grid-en-
6	abled water heaters that the manufacturer
7	ships each year.
8	"(ii) Operators.—The Secretary
9	shall require utilities and other demand re-
10	sponse and thermal storage program oper-
11	ators to report annually the quantity of
12	grid-enabled water heaters activated for
13	their programs using forms of the Energy
14	Information Agency or using such other
15	mechanism that the Secretary determines
16	appropriate after an opportunity for notice
17	and comment.
18	"(iii) Confidentiality require-
19	MENTS.—The Secretary shall treat ship-
20	ment data reported by manufacturers as
21	confidential business information.
22	"(D) Publication of information.—
23	"(i) In GENERAL.—In 2017 and
24	2019, the Secretary shall publish an anal-
25	ysis of the data collected under subpara-

1	graph (C) to assess the extent to which
2	shipped products are put into use in de-
3	mand response and thermal storage pro-
4	grams.
5	"(ii) Prevention of product di-
6	VERSION.—If the Secretary determines
7	that sales of grid-enabled water heaters ex-
8	eeed by 15 percent or greater the quantity
9	of such products activated for use in de-
10	mand response and thermal storage pro-
11	grams annually, the Secretary shall, after
12	opportunity for notice and comment, estab-
13	lish procedures to prevent product diver-
14	sion for non-program purposes.
15	"(E) COMPLIANCE.
16	"(i) IN GENERAL.—Subparagraphs
17	(A) through (D) shall remain in effect
18	until the Secretary determines under this
19	section that—
20	"(I) grid-enabled water heaters
21	do not require a separate efficiency
22	requirement; or
23	"(II) sales of grid-enabled water
24	heaters exceed by 15 percent or great-
25	er the quantity of such products acti-

1	vated for use in demand response and
2	thermal storage programs annually
3	and procedures to prevent product di-
4	version for non-program purposes
5	would not be adequate to prevent such
6	product diversion.
7	"(ii) EFFECTIVE DATE.—If the Sec-
8	retary exercises the authority described in
9	elause (i) or amends the efficiency require-
10	ment for grid-enabled water heaters, that
11	action will take effect on the date de-
12	seribed in subsection $(m)(4)(A)(ii)$.
13	"(iii) Consideration.—In carrying
14	out this section with respect to electric
15	water heaters, the Secretary shall consider
16	the impact on thermal storage and demand
17	response programs, including any impact
18	on energy savings, electric bills, peak load
19	reduction, electric reliability, integration of
20	renewable resources, and the environment.
21	"(iv) Requirements.—In carrying
22	out this paragraph, the Secretary shall re-
23	quire that grid-enabled water heaters be
24	equipped with communication capability to

enable the grid-enabled water heaters to

1	participate in ancillary services programs is
2	the Secretary determines that the tech-
3	nology is available, practical, and cost-ef-
4	feetive.";
5	(2) in section 332(a) (42 U.S.C. 6302(a))—
6	(A) in paragraph (5), by striking "or" at
7	the end;
8	(B) in the first paragraph (6), by striking
9	the period at the end and inserting a semicolon
10	(C) by redesignating the second paragraph
11	(6) as paragraph (7);
12	(D) in subparagraph (B) of paragraph (7)
13	(as so redesignated), by striking the period at
14	the end and inserting "; or"; and
15	(E) by adding at the end the following:
16	"(8) for any person—
17	"(A) to activate an activation lock for a
18	grid-enabled water heater with knowledge that
19	such water heater is not used as part of an
20	electric thermal storage or demand response
21	program;
22	"(B) to distribute an activation key for a
23	grid-enabled water heater with knowledge that
24	such activation key will be used to activate a
25	grid-enabled water heater that is not used as

1	part of an electric thermal storage or demand
2	response program;
3	"(C) to otherwise enable a grid-enabled
4	water heater to operate at its designed speci-
5	fication and capabilities with knowledge that
6	such water heater is not used as part of an
7	electric thermal storage or demand response
8	program; or
9	"(D) to knowingly remove or render illegi-
10	ble the label of a grid-enabled water heater de-
11	scribed in section 325(e)(6)(A)(ii)(V).";
12	(3) in section 333(a) (42 U.S.C. 6303(a))—
13	(A) by striking "section 332(a)(5)" and in-
14	serting "paragraph (5), (6), (7), or (8) of sec-
15	tion 332(a)"; and
16	(B) by striking "paragraph (1), (2), or (5)
17	of section 332(a)" and inserting "paragraph
18	(1), (2), (5), (6), (7), or (8) of section 332(a)";
19	and
20	(4) in section 334 (42 U.S.C. 6304)—
21	(A) by striking "section 332(a)(5)" and in-
22	serting "paragraph (5), (6), (7), or (8) of sec-
23	tion 332(a)"; and
24	(B) by striking "section 332(a)(6)" and in-
25	serting "section 332(a)(7)".

1 Subtitle DC—Energy Performance

2 Requirement for Federal Buildings

3	SEC.	4321.	ENERGY	PERFORMANCE	REQUIREMENT	FOR
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- 4 FEDERAL BUILDINGS.
- 5 Section 543 of the National Energy Conservation
- 6 Policy Act (42 U.S.C. 8253) is amended—
- 7 (1) by striking subsection (a) and inserting the
- 8 following:
- 9 "(a) Energy Performance Requirement for
- 10 Federal Buildings.—
- 11 "(1) REQUIREMENT.—Subject to paragraph
- 12 (2), each agency shall apply energy conservation
- measures to, and shall improve the design for the
- construction of, the Federal buildings of the agency
- 15 (including each industrial or laboratory facility) so
- that the energy consumption per gross square foot
- of the Federal buildings of the agency in fiscal years
- 18 2006 through 2017 is reduced, as compared with the
- 19 energy consumption per gross square foot of the
- Federal buildings of the agency in fiscal year 2003,
- 21 by the percentage specified in the following table:

	Percentage
"Fiscal Year	Reduction
2006	2
2007	4
2008	9
2009	
2010	
2011	
2012	21

	"Fiscal Year Percentage Reduction
	2013
	2014
	2015
	2016
	2017
1	"(2) Exclusion for buildings with energy
2	INTENSIVE ACTIVITIES.—
3	"(A) IN GENERAL.—An agency may ex-
4	clude from the requirements of paragraph (1)
5	any building (including the associated energy
6	consumption and gross square footage) in which
7	energy intensive activities are carried out.
8	"(B) Reports.—Each agency shall iden-
9	tify and list in each report made under section
10	548(a) the buildings designated by the agency
11	for exclusion under subparagraph (A).
12	"(3) Review.—Not later than December 31,
13	2017, the Secretary shall—
14	"(A) review the results of the implementa-
15	tion of the energy performance requirements es-
16	tablished under paragraph (1); and
17	"(B) based on the review conducted under
18	subparagraph (A), submit to Congress a report
19	that addresses the feasibility of requiring each
20	agency to apply energy conservation measures
21	to, and improve the design for the construction
22	of, the Federal buildings of the agency (includ-

1	ing each industrial or laboratory facility) so
2	that the energy consumption per gross square
3	foot of the Federal buildings of the agency in
4	each of fiscal years 2018 through 2030 is re-
5	duced, as compared with the energy consump-
6	tion per gross square foot of the Federal build-
7	ings of the agency in the prior fiscal year, by
8	3 percent."; and
9	(2) in subsection (f)—
10	(A) in paragraph (1)—
11	(i) by redesignating subparagraphs
12	(E), (F), and (G) as subparagraphs (F),
13	(G), and (H), respectively; and
14	(ii) by inserting after subparagraph
15	(D) the following:
16	"(E) Ongoing commissioning.—The
17	term 'ongoing commissioning' means an ongo-
18	ing process of commissioning using monitored
19	data, the primary goal of which is to ensure
20	continuous optimum performance of a facility,
21	in accordance with design or operating needs,
22	over the useful life of the facility, while meeting
23	facility occupancy requirements.";
24	(B) in paragraph (2), by adding at the end
25	the following:

- "(C) Energy management system.—An energy manager designated under subparagraph (A) shall consider use of a system to manage energy use at the facility and certification of the facility in accordance with the International Organization for Standardization standard numbered 50001 and entitled 'Energy Manage-ment Systems'.";
 - (C) by striking paragraphs (3) and (4) and inserting the following:
 - "(3) Energy and water evaluations and commissioning.—

"(A) EVALUATIONS.—Except as provided in subparagraph (B), effective beginning on the date that is 180 days after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2015, and annually thereafter, each energy manager shall complete, for each calendar year, a comprehensive energy and water evaluation and recommissioning or retrocommissioning for approximately 25 percent of the facilities of each agency that meet the criteria under paragraph (2)(B) in a manner that ensures that an evaluation of each facility is completed at least once every 4 years.

1	"(B) Exceptions.—An evaluation and re-
2	commissioning shall not be required under sub-
3	paragraph (A) with respect to a facility that—
4	"(i) has had a comprehensive energy
5	and water evaluation during the 8-year pe-
6	riod preceding the date of the evaluation;
7	"(ii)(I) has been commissioned, re-
8	commissioned, or retrocommissioned dur-
9	ing the 10-year period preceding the date
10	of the evaluation; or
11	"(II) is under ongoing commissioning;
12	"(iii) has not had a major change in
13	function or use since the previous evalua-
14	tion and commissioning;
15	"(iv) has been benchmarked with pub-
16	lic disclosure under paragraph (8) within
17	the year preceding the evaluation; and
18	"(v)(I) based on the benchmarking,
19	has achieved at a facility level the most re-
20	cent cumulative energy savings target
21	under subsection (a) compared to the ear-
22	lier of—
23	"(aa) the date of the most recent
24	evaluation; or
25	"(bb) the date—

1	"(AA) of the most recent
2	commissioning, recommissioning,
3	or retrocommissioning; or
4	"(BB) on which ongoing
5	commissioning began; or
6	"(II) has a long-term contract in
7	place guaranteeing energy savings at least
8	as great as the energy savings target under
9	subclause (I).
10	"(4) Implementation of identified energy
11	AND WATER EFFICIENCY MEASURES.—
12	"(A) IN GENERAL.—Not later than 2 years
13	after the date of completion of each evaluation
14	under paragraph (3), each energy manager
15	may—
16	"(i) implement any energy- or water-
17	saving measure that the Federal agency
18	identified in the evaluation conducted
19	under paragraph (3) that is life-cycle cost
20	effective; and
21	"(ii) bundle individual measures of
22	varying paybacks together into combined
23	projects.
24	"(B) Measures not implemented.—
25	The energy manager shall, as part of the cer-

1	tification system under paragraph (7), explain
2	the reasons why any life-cycle cost effective
3	measures were not implemented under subpara-
4	graph (A) using guidelines developed by the
5	Secretary."; and
6	(D) in paragraph (7)(C), by adding at the
7	end the following:
8	"(iii) Summary Report.—The Sec-
9	retary shall make available a report that
10	summarizes the information tracked under
11	subparagraph (B)(i) by each agency and,
12	as applicable, by each type of measure.".
1 2	SEC. 4322. FEDERAL BUILDING ENERGY EFFICIENCY PER-
13	SEC. 4622. FEDERAL BUILDING ENERGI EFFICIENCI FER-
13	FORMANCE STANDARDS; CERTIFICATION
14	FORMANCE STANDARDS; CERTIFICATION
14 15	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS.
14 15 16 17	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) DEFINITIONS.—Section 303 of the Energy Con-
14 15 16 17	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) Definitions.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as
14 15 16 17	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as amended by section 101(a)) is amended—
114 115 116 117 118	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as amended by section 101(a)) is amended— (1) in paragraph (6), by striking "to be con-
14 15 16 17 18 19 20	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as amended by section 101(a)) is amended— (1) in paragraph (6), by striking "to be constructed" and inserting "constructed or altered";
14 15 16 17 18 19 20 21	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as amended by section 101(a)) is amended— (1) in paragraph (6), by striking "to be constructed" and inserting "constructed or altered"; and
14 15 16 17 18 19 20 21	FORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS. (a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as amended by section 101(a)) is amended— (1) in paragraph (6), by striking "to be constructed" and inserting "constructed or altered"; and (2) by adding at the end the following:

1	can meet energy standards for new buildings, based
2	on criteria to be established by the Secretary
3	through notice and comment rulemaking.".
4	(b) Federal Building Efficiency Standards.—
5	Section 305 of the Energy Conservation and Production
6	Act (42 U.S.C. 6834) is amended—
7	(1) in subsection (a)(3)—
8	(A) by striking "(3)(A) Not later than"
9	and all that follows through subparagraph (B)
10	and inserting the following:
11	"(3) Revised federal building energy ef-
12	FICIENCY PERFORMANCE STANDARDS; CERTIFI-
13	CATION FOR GREEN BUILDINGS.—
14	"(A) REVISED FEDERAL BUILDING EN-
15	ERGY EFFICIENCY PERFORMANCE STAND-
16	ARDS.—
17	"(i) In general.—Not later than 1
18	year after the date of enactment of the En-
19	ergy Savings and Industrial Competitive-
20	ness Act of 2015, the Secretary shall es-
21	tablish, by rule, revised Federal building
22	energy efficiency performance standards
23	that require that—

1	"(I) new Federal buildings and
2	alterations and additions to existing
3	Federal buildings—
4	"(aa) meet or exceed the
5	most recent revision of the Inter-
6	national Energy Conservation
7	Code (in the case of residential
8	buildings) or ASHRAE Standard
9	90.1 (in the case of commercial
10	buildings) as of the date of en-
11	actment of the Energy Savings
12	and Industrial Competitiveness
13	Act of 2015; and
14	"(bb) meet or exceed the en-
15	ergy provisions of State and local
16	building codes applicable to the
17	building, if the codes are more
18	stringent than the International
19	Energy Conservation Code or
20	ASHRAE Standard 90.1, as ap-
21	plicable;
22	(Π) unless demonstrated not to
23	be life-cycle cost effective for new
24	Federal buildings and Federal build-
25	ings with major renovations—

1	"(aa) the buildings be de-
2	signed to achieve energy con-
3	sumption levels that are at least
4	30 percent below the levels estab-
5	lished in the version of the
6	ASHRAE Standard or the Inter-
7	national Energy Conservation
8	Code, as appropriate, that is ap-
9	plied under subclause (I)(aa), in-
10	cluding updates under subpara-
11	graph (B); and
12	"(bb) sustainable design
13	principles are applied to the loca-
14	tion, siting, design, and construc-
15	tion of all new Federal buildings
16	and replacement Federal build-
17	ings;
18	"(III) if water is used to achieve
19	energy efficiency, water conservation
20	technologies shall be applied to the ex-
21	tent that the technologies are life-
22	cycle cost effective; and
23	"(IV) if life-cycle cost effective,
24	as compared to other reasonably avail-
25	able technologies, not less than 30

1	percent of the hot water demand for
2	each new Federal building or Federal
3	building undergoing a major renova-
4	tion be met through the installation
5	and use of solar hot water heaters.
6	"(ii) Limitation.—Clause (i)(I) shall
7	not apply to unaltered portions of existing
8	Federal buildings and systems that have
9	been added to or altered.
10	"(B) UPDATES.—Not later than 1 year
11	after the date of approval of each subsequent
12	revision of the ASHRAE Standard or the Inter-
13	national Energy Conservation Code, as appro-
14	priate, the Secretary shall determine whether
15	the revised standards established under sub-
16	paragraph (A) should be updated to reflect the
17	revisions, based on the energy savings and life-
18	cycle cost-effectiveness of the revisions.";
19	(B) in subparagraph (C), by striking "(C)
20	In the budget request" and inserting the fol-
21	lowing:
22	"(C) Budget request.—In the budget
23	request"; and
24	(C) by striking subparagraph (D) and in-
25	serting the following:

1	"(D) CERTIFICATION FOR GREEN BUILD-
2	INGS.—
3	"(i) Sustainable design prin-
4	CIPLES.—Sustainable design principles
5	shall be applied to the siting, design, and
6	construction of buildings covered by this
7	subparagraph.
8	"(ii) Selection of certification
9	SYSTEMS.—The Secretary, after reviewing
10	the findings of the Federal Director under
11	section 436(h) of the Energy Independence
12	and Security Act of 2007 (42 U.S.C.
13	17092(h)), in consultation with the Admin-
14	istrator of General Services, and in con-
15	sultation with the Secretary of Defense re-
16	lating to those facilities under the custody
17	and control of the Department of Defense,
18	shall determine those certification systems
19	for green commercial and residential build-
20	ings that the Secretary determines to be
21	the most likely to encourage a comprehen-
22	sive and environmentally sound approach
23	to certification of green buildings.
24	"(iii) Basis for selection.—The
25	determination of the certification systems

1	under clause (ii) shall be based on ongoing
2	review of the findings of the Federal Direc-
3	tor under section 436(h) of the Energy
4	Independence and Security Act of 2007
5	(42 U.S.C. 17092(h)) and the criteria de-
6	scribed in clause (v).
7	"(iv) Administration.—In deter-
8	mining certification systems under this
9	subparagraph, the Secretary shall—
10	"(I) make a separate determina-
11	tion for all or part of each system;
12	"(II) confirm that the criteria
13	used to support the selection of build-
14	ing products, materials, brands, and
15	technologies are fair and neutral
16	(meaning that such criteria are based
17	on an objective assessment of relevant
18	technical data), do not prohibit, dis-
19	favor, or discriminate against selec-
20	tion based on technically inadequate
21	information to inform human or envi-
22	ronmental risk, and are expressed to
23	prefer performance measures when-
24	ever performance measures may rea-

1	sonably be used in lieu of prescriptive
2	measures; and
3	"(III) use environmental and
4	health criteria that are based on risk
5	assessment methodology that is gen-
6	erally accepted by the applicable sci-
7	entific disciplines.
8	"(v) Considerations.—In deter-
9	mining the green building certification sys-
10	tems under this subparagraph, the Sec-
11	retary shall take into consideration—
12	"(I) the ability and availability of
13	assessors and auditors to independ-
14	ently verify the criteria and measure-
15	ment of metrics at the scale necessary
16	to implement this subparagraph;
17	"(II) the ability of the applicable
18	certification organization to collect
19	and reflect public comment;
20	"(III) the ability of the standard
21	to be developed and revised through a
22	consensus-based process;
23	"(IV) an evaluation of the
24	robustness of the criteria for a high-

1	performance green building, which
2	shall give credit for promoting—
3	"(aa) efficient and sustain-
4	able use of water, energy, and
5	other natural resources;
6	"(bb) use of renewable en-
7	ergy sources;
8	"(cc) improved indoor envi-
9	ronmental quality through en-
10	hanced indoor air quality, ther-
11	mal comfort, acoustics, day light-
12	ing, pollutant source control, and
13	use of low-emission materials and
14	building system controls; and
15	"(dd) such other criteria as
16	the Secretary determines to be
17	appropriate; and
18	"(V) national recognition within
19	the building industry.
20	"(vi) Review.—The Secretary, in
21	consultation with the Administrator of
22	General Services and the Secretary of De-
23	fense, shall conduct an ongoing review to
24	evaluate and compare private sector green

1	building certification systems, taking into
2	account—
3	"(I) the criteria described in
4	clause (v); and
5	"(II) the identification made by
6	the Federal Director under section
7	436(h) of the Energy Independence
8	and Security Act of 2007 (42 U.S.C.
9	17092(h)).
10	"(vii) Exclusions.—
11	"(I) In general.—Subject to
12	subclause (II), if a certification sys-
13	tem fails to meet the review require-
14	ments of clause (v), the Secretary
15	shall—
16	"(aa) identify the portions
17	of the system, whether pre-
18	requisites, credits, points, or oth-
19	erwise, that meet the review cri-
20	teria of clause (v);
21	"(bb) determine the portions
22	of the system that are suitable
23	for use; and

1	"(cc) exclude all other por-
2	tions of the system from identi-
3	fication and use.
4	"(II) Entire systems.—The
5	Secretary shall exclude an entire sys-
6	tem from use if an exclusion under
7	subclause (I)—
8	"(aa) impedes the integrated
9	use of the system;
10	"(bb) creates disparate re-
11	view criteria or unequal point ac-
12	cess for competing materials; or
13	"(cc) increases agency costs
14	of the use.
15	"(viii) Internal certification
16	PROCESSES.—The Secretary may by rule
17	allow Federal agencies to develop internal
18	certification processes, using certified pro-
19	fessionals, in lieu of certification by certifi-
20	cation entities identified under clause (ii).
21	"(ix) Privatized military hous-
22	ING.—With respect to privatized military
23	housing, the Secretary of Defense, after
24	consultation with the Secretary may,
25	through rulemaking, develop alternative

1	certification systems and levels than the
2	systems and levels identified under clause
3	(ii) that achieve an equivalent result in
4	terms of energy savings, sustainable de-
5	sign, and green building performance.
6	"(x) Water conservation tech-
7	NOLOGIES.—In addition to any use of
8	water conservation technologies otherwise
9	required by this section, water conservation
10	technologies shall be applied to the extent
11	that the technologies are life-cycle cost-ef-
12	fective.
13	"(xi) Effective date.—
14	"(I) DETERMINATIONS MADE
15	AFTER DECEMBER 31, 2015.—The
16	amendments made by section
17	432(b)(1)(C) of Energy Savings and
18	Industrial Competitiveness Act of
19	2015 shall apply to any determination
20	made by a Federal agency after De-
21	cember 31, 2015.
22	"(II) DETERMINATIONS MADE ON
23	OR BEFORE DECEMBER 31, 2015.—
24	This subparagraph (as in effect on the
25	day before the date of enactment of

1	Energy Savings and Industrial Com-
2	petitiveness Act of 2015) shall apply
3	to any use of a certification system
4	for green commercial and residential
5	buildings by a Federal agency on or
6	before December 31, 2015."; and
7	(2) by striking subsections (c) and (d) and in-
8	serting the following:
9	"(c) Periodic Review.—The Secretary shall—
10	"(1) once every 5 years, review the Federal
11	building energy standards established under this sec-
12	tion; and
13	"(2) on completion of a review under paragraph
14	(1), if the Secretary determines that significant en-
15	ergy savings would result, upgrade the standards to
16	include all new energy efficiency and renewable en-
17	ergy measures that are technologically feasible and
18	economically justified.".
19	SEC. 4323. ENHANCED ENERGY EFFICIENCY UNDER-
20	WRITING.
21	(a) Definitions.—In this section:
22	(1) COVERED AGENCY.—The term "covered
23	agency"—
24	(A) means—

1	(i) an executive agency, as that term
2	is defined in section 102 of title 31, United
3	States Code; and
4	(ii) any other agency of the Federal
5	Government; and
6	(B) includes any enterprise, as that term is
7	defined under section 1303 of the Federal
8	Housing Enterprises Financial Safety and
9	Soundness Act of 1992 (12 U.S.C. 4502).
10	(2) COVERED LOAN.—The term "covered loan"
11	means a loan secured by a home that is issued, in-
12	sured, purchased, or securitized by a covered agency.
13	(3) Homeowner.—The term "homeowner"
14	means the mortgagor under a covered loan.
15	(4) Mortgagee.—The term "mortgagee"
16	means—
17	(A) an original lender under a covered loan
18	or the holder of a covered loan at the time at
19	which that mortgage transaction is con-
20	summated;
21	(B) any affiliate, agent, subsidiary, suc-
22	cessor, or assignee of an original lender under
23	a covered loan or the holder of a covered loan
24	at the time at which that mortgage transaction
25	is consummated;

1	(C) any servicer of a covered loan; and
2	(D) any subsequent purchaser, trustee, or
3	transferee of any covered loan issued by an
4	original lender.
5	(5) Secretary.—The term "Secretary" means
6	the Secretary of Housing and Urban Development
7	(6) Servicer.—The term "servicer" means the
8	person or entity responsible for the servicing of a
9	covered loan, including the person or entity who
10	makes or holds a covered loan if that person or enti-
11	ty also services the covered loan.
12	(7) Servicing.—The term "servicing" has the
13	meaning given the term in section 6(i) of the Real
14	Estate Settlement Procedures Act of 1974 (12
15	U.S.C. 2605(i)).
16	(b) FINDINGS AND PURPOSES.—
17	(1) FINDINGS.—Congress finds that—
18	(A) energy costs for homeowners are a sig-
19	nificant and increasing portion of their house-
20	hold budgets;
21	(B) household energy use can vary sub-
22	stantially depending on the efficiency and char-
23	acteristics of the house;
24	(C) expected energy cost savings are im-
25	portant to the value of the house;

1	(D) the current test for loan affordability
2	used by most covered agencies, commonly
3	known as the "debt-to-income" test, is inad-
4	equate because it does not take into account the
5	expected energy cost savings for the homeowner
6	of an energy efficient home; and
7	(E) another loan limitation, commonly
8	known as the "loan-to-value" test, is tied to the
9	appraisal, which often does not adjust for effi-
10	ciency features of houses.
11	(2) Purposes.—The purposes of this section
12	are to—
13	(A) improve the accuracy of mortgage un-
14	derwriting by Federal mortgage agencies by en-
15	suring that energy cost savings are included in
16	the underwriting process as described below,
17	and thus to reduce the amount of energy con-
18	sumed by homes and to facilitate the creation
19	of energy efficiency retrofit and construction
20	jobs;
21	(B) require a covered agency to include the
22	expected energy cost savings of a homeowner as
23	a regular expense in the tests, such as the debt-

to-income test, used to determine the ability of

1	the loan applicant to afford the cost of home-
2	ownership for all loan programs; and

- (C) require a covered agency to include the value home buyers place on the energy efficiency of a house in tests used to compare the mortgage amount to home value, taking precautions to avoid double-counting and to support safe and sound lending.
- 9 (c) Enhanced Energy Efficiency Under-10 writing Criteria.—
 - (1) In General.—Not later than 1 year after the date of enactment of this Act, the Secretary shall, in consultation with the advisory group established in subsection (f)(2), develop and issue guidelines for a covered agency to implement enhanced loan eligibility requirements, for use when testing the ability of a loan applicant to repay a covered loan, that account for the expected energy cost savings for a loan applicant at a subject property, in the manner set forth in paragraphs (2) and (3).
 - (2) REQUIREMENTS TO ACCOUNT FOR ENERGY COST SAVINGS.—The enhanced loan eligibility requirements under paragraph (1) shall require that, for all covered loans for which an energy efficiency report is voluntarily provided to the mortgagee by

1	the mortgagor, the covered agency and the mort-
2	gagee shall take into consideration the estimated en-
3	ergy cost savings expected for the owner of the sub-
4	ject property in determining whether the loan appli-
5	cant has sufficient income to service the mortgage
6	debt plus other regular expenses. To the extent that
7	a covered agency uses a test such as a debt-to-in-
8	come test that includes certain regular expenses,
9	such as hazard insurance and property taxes, the ex-
10	pected energy cost savings shall be included as an
11	offset to these expenses. Energy costs to be assessed
12	include the cost of electricity, natural gas, oil, and
13	any other fuel regularly used to supply energy to the
14	subject property.
15	(3) Determination of estimated energy
16	COST SAVINGS.—
17	(A) IN GENERAL.—The guidelines to be
18	issued under paragraph (1) shall include in-
19	structions for the covered agency to calculate
20	estimated energy cost savings using—
21	(i) the energy efficiency report;
22	(ii) an estimate of baseline average
23	energy costs; and
24	(iii) additional sources of information
25	as determined by the Secretary.

1	(B) REPORT REQUIREMENTS.—For the
2	purposes of subparagraph (A), an energy effi-
3	ciency report shall—
4	(i) estimate the expected energy cost
5	savings specific to the subject property,
6	based on specific information about the
7	property;
8	(ii) be prepared in accordance with
9	the guidelines to be issued under para-
10	graph (1); and
11	(iii) be prepared—
12	(I) in accordance with the Resi-
13	dential Energy Service Network's
14	Home Energy Rating System (com-
15	monly known as "HERS") by an indi-
16	vidual certified by the Residential En-
17	ergy Service Network, unless the Sec-
18	retary finds that the use of HERS
19	does not further the purposes of this
20	section; or
21	(II) by other methods approved
22	by the Secretary, in consultation with
23	the Secretary of Energy and the advi-
24	sory group established in subsection
25	(f)(2), for use under this section,

1	which shall include a third-party qual-
2	ity assurance procedure.
3	(C) USE BY APPRAISER.—If an energy ef-
4	ficiency report is used under paragraph (2), the
5	energy efficiency report shall be provided to the
6	appraiser to estimate the energy efficiency of
7	the subject property and for potential adjust-
8	ments for energy efficiency.
9	(4) Required disclosure to consumer for
10	A HOME WITH AN ENERGY EFFICIENCY REPORT.—
11	If an energy efficiency report is used under para-
12	graph (2), the guidelines to be issued under para-
13	graph (1) shall require the mortgagee to—
14	(A) inform the loan applicant of the ex-
15	pected energy costs as estimated in the energy
16	efficiency report, in a manner and at a time as
17	prescribed by the Secretary, and if practicable,
18	in the documents delivered at the time of loan
19	application; and
20	(B) include the energy efficiency report in
21	the documentation for the loan provided to the
22	borrower.
23	(5) Required disclosure to consumer for
24	A HOME WITHOUT AN ENERGY EFFICIENCY RE-
25	PORT.—If an energy efficiency report is not used

1	under paragraph (2), the guidelines to be issued
2	under paragraph (1) shall require the mortgagee to
3	inform the loan applicant in a manner and at a time
4	as prescribed by the Secretary, and if practicable, in
5	the documents delivered at the time of loan applica-
6	tion of—
7	(A) typical energy cost savings that would
8	be possible from a cost-effective energy upgrade
9	of a home of the size and in the region of the
10	subject property;
11	(B) the impact the typical energy cost sav-
12	ings would have on monthly ownership costs of
13	a typical home;
14	(C) the impact on the size of a mortgage
15	that could be obtained if the typical energy cost
16	savings were reflected in an energy efficiency
17	report; and
18	(D) resources for improving the energy ef-
19	ficiency of a home.
20	(6) Pricing of Loans.—
21	(A) IN GENERAL.—A covered agency may
22	price covered loans originated under the en-
23	hanced loan eligibility requirements required
24	under this section in accordance with the esti-

mated risk of the loans.

1 (B) Imposition of Certain Material 2 COSTS, IMPEDIMENTS, OR PENALTIES.—In the absence of a publicly disclosed analysis that 3 4 demonstrates significant additional default risk 5 or prepayment risk associated with the loans, a 6 covered agency shall not impose material costs, 7 impediments, or penalties on covered loans 8 merely because the loan uses an energy effi-9 ciency report or the enhanced loan eligibility re-10 quirements required under this section. (7) Limitations.—

- (A) IN GENERAL.—A covered agency may price covered loans originated under the enhanced loan eligibility requirements required under this section in accordance with the estimated risk of those loans.
- (B) Prohibited actions.—A covered agency shall not—
 - (i) modify existing underwriting criteria or adopt new underwriting criteria that intentionally negate or reduce the impact of the requirements or resulting benefits that are set forth or otherwise derived from the enhanced loan eligibility requirements required under this subsection; or

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1	(ii) impose greater buy back require-
2	ments, credit overlays, or insurance re-
3	quirements, including private mortgage in-
4	surance, on covered loans merely because
5	the loan uses an energy efficiency report or
6	the enhanced loan eligibility requirements
7	required under this subsection.
8	(8) Applicability and implementation
9	DATE.—Not later than 3 years after the date of en-
10	actment of this Act, and before December 31, 2017,
11	the enhanced loan eligibility requirements required
12	under this subsection shall be implemented by each
13	covered agency to—
14	(A) apply to any covered loan for the sale,
15	or refinancing of any loan for the sale, of any
16	home;
17	(B) be available on any residential real
18	property (including individual units of con-
19	dominiums and cooperatives) that qualifies for
20	a covered loan; and
21	(C) provide prospective mortgagees with
22	sufficient guidance and applicable tools to im-
23	plement the required underwriting methods.
24	(d) Enhanced Energy Efficiency Under-
25	WRITING VALUATION GUIDELINES —

1	(1) In general.—Not later than 1 year after
2	the date of enactment of this Act, the Secretary
3	shall—
4	(A) in consultation with the Federal Fi-
5	nancial Institutions Examination Council and
6	the advisory group established in subsection
7	(f)(2), develop and issue guidelines for a cov-
8	ered agency to determine the maximum per-
9	mitted loan amount based on the value of the
10	property for all covered loans made on prop-
11	erties with an energy efficiency report that
12	meets the requirements of subsection (c)(3)(B);
13	and
14	(B) in consultation with the Secretary of
15	Energy, issue guidelines for a covered agency to
16	determine the estimated energy savings under
17	paragraph (3) for properties with an energy ef-
18	ficiency report.
19	(2) Requirements.—The enhanced energy ef-
20	ficiency underwriting valuation guidelines required
21	under paragraph (1) shall include—
22	(A) a requirement that if an energy effi-
23	ciency report that meets the requirements of
24	subsection $(c)(3)(B)$ is voluntarily provided to
25	the mortgagee, such report shall be used by the

1	mortgagee or covered agency to determine the
2	estimated energy savings of the subject prop-
3	erty; and

- (B) a requirement that the estimated energy savings of the subject property be added to the appraised value of the subject property by a mortgagee or covered agency for the purpose of determining the loan-to-value ratio of the subject property, unless the appraisal includes the value of the overall energy efficiency of the subject property, using methods to be established under the guidelines issued under paragraph (1).
- (3) Determination of estimated energy savings.—
 - (A) Amount of energy savings shall be determined by calculating the difference between the estimated energy costs for the average comparable houses, as determined in guidelines to be issued under paragraph (1), and the estimated energy costs for the subject property based upon the energy efficiency report.
 - (B) DURATION OF ENERGY SAVINGS.—The duration of the estimated energy savings shall

1	be based upon the estimated life of the applica-
2	ble equipment, consistent with the rating sys-
3	tem used to produce the energy efficiency re-
4	port.
5	(C) Present value of energy sav-
6	INGS.—The present value of the future savings
7	shall be discounted using the average interest
8	rate on conventional 30-year mortgages, in the
9	manner directed by guidelines issued under
10	paragraph (1).
11	(4) Ensuring consideration of energy ef-
12	FICIENT FEATURES.—Section 1110 of the Financial
13	Institutions Reform, Recovery, and Enforcement Act
14	of 1989 (12 U.S.C. 3339) is amended—
15	(A) in paragraph (2), by striking "; and"
16	and inserting a semicolon; and
17	(B) in paragraph (3), by striking the pe-
18	riod at the end and inserting "; and" and in-
19	serting after paragraph (3) the following:
20	"(4) that State certified and licensed appraisers
21	have timely access, whenever practicable, to informa-
22	tion from the property owner and the lender that
23	may be relevant in developing an opinion of value re-
24	garding the energy- and water-saving improvements
25	or features of a property, such as—

1	"(A) labels or ratings of buildings;
2	"(B) installed appliances, measures, sys-
3	tems or technologies;
4	"(C) blueprints;
5	"(D) construction costs;
6	"(E) financial or other incentives regard-
7	ing energy- and water-efficient components and
8	systems installed in a property;
9	"(F) utility bills;
10	"(G) energy consumption and
11	benchmarking data; and
12	"(H) third-party verifications or represen-
13	tations of energy and water efficiency perform-
14	ance of a property, observing all financial pri-
15	vacy requirements adhered to by certified and
16	licensed appraisers, including section 501 of the
17	Gramm-Leach-Bliley Act (15 U.S.C. 6801).
18	Unless a property owner consents to a lender, an ap-
19	praiser, in carrying out the requirements of para-
20	graph (4), shall not have access to the commercial
21	or financial information of the owner that is privi-
22	leged or confidential.".
23	(5) Transactions requiring state cer-
24	TIFIED APPRAISERS.—Section 1113 of the Financial

1	Institutions Reform, Recovery, and Enforcement Act
2	of 1989 (12 U.S.C. 3342) is amended—
3	(A) in paragraph (1), by inserting before
4	the semicolon the following: ", or any real prop-
5	erty on which the appraiser makes adjustments
6	using an energy efficiency report"; and
7	(B) in paragraph (2), by inserting after
8	"atypical" the following: ", or an appraisal on
9	which the appraiser makes adjustments using
10	an energy efficiency report.".
11	(6) Protections.—
12	(A) AUTHORITY TO IMPOSE LIMITA-
13	TIONS.—The guidelines to be issued under
14	paragraph (1) shall include such limitations and
15	conditions as determined by the Secretary to be
16	necessary to protect against meaningful under
17	or over valuation of energy cost savings or du-
18	plicative counting of energy efficiency features
19	or energy cost savings in the valuation of any
20	subject property that is used to determine a
21	loan amount.
22	(B) Additional authority.—At the end
23	of the 7-year period following the implementa-
24	tion of enhanced eligibility and underwriting

valuation requirements under this section, the

Secretary may modify or apply additional exceptions to the approach described in paragraph (2), where the Secretary finds that the unadjusted appraisal will reflect an accurate market value of the efficiency of the subject property or that a modified approach will better reflect an accurate market value.

- (7) APPLICABILITY AND IMPLEMENTATION DATE.—Not later than 3 years after the date of enactment of this Act, and before December 31, 2017, each covered agency shall implement the guidelines required under this subsection, which shall—
- 13 (A) apply to any covered loan for the sale, 14 or refinancing of any loan for the sale, of any 15 home; and
 - (B) be available on any residential real property, including individual units of condominiums and cooperatives, that qualifies for a covered loan.
- 20 (e) Monitoring.—Not later than 1 year after the 21 date on which the enhanced eligibility and underwriting 22 valuation requirements are implemented under this section, and every year thereafter, each covered agency with 24 relevant activity shall issue and make available to the public a report that—

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- 1 (1) enumerates the number of covered loans of 2 the agency for which there was an energy efficiency 3 report, and that used energy efficiency appraisal 4 guidelines and enhanced loan eligibility require-5 ments;
 - (2) includes the default rates and rates of foreclosures for each category of loans; and
 - (3) describes the risk premium, if any, that the agency has priced into covered loans for which there was an energy efficiency report.

(f) Rulemaking.—

- (1) In General.—The Secretary shall prescribe regulations to carry out this section, in consultation with the Secretary of Energy and the advisory group established in paragraph (2), which may contain such classifications, differentiations, or other provisions, and may provide for such proper implementation and appropriate treatment of different types of transactions, as the Secretary determines are necessary or proper to effectuate the purposes of this section, to prevent circumvention or evasion thereof, or to facilitate compliance therewith.
- (2) ADVISORY GROUP.—To assist in carrying out this section, the Secretary shall establish an ad-

1	visory group, consisting of individuals representing
2	the interests of—
3	(A) mortgage lenders;
4	(B) appraisers;
5	(C) energy raters and residential energy
6	consumption experts;
7	(D) energy efficiency organizations;
8	(E) real estate agents;
9	(F) home builders and remodelers;
10	(G) State energy officials; and
11	(H) others as determined by the Secretary.
12	(g) Additional Study.—
13	(1) In General.—Not later than 18 months
14	after the date of enactment of this Act, the Sec-
15	retary shall reconvene the advisory group established
16	in subsection $(f)(2)$, in addition to water and loca-
17	tional efficiency experts, to advise the Secretary on
18	the implementation of the enhanced energy efficiency
19	underwriting criteria established in subsections (c)
20	and (d).
21	(2) RECOMMENDATIONS.—The advisory group
22	established in subsection $(f)(2)$ shall provide rec-
23	ommendations to the Secretary on any revisions or
24	additions to the enhanced energy efficiency under-
25	writing criteria deemed necessary by the group.

1	which may include alternate methods to better ac-
2	count for home energy costs and additional factors
3	to account for substantial and regular costs of home-
4	ownership such as location-based transportation
5	costs and water costs. The Secretary shall forward
6	any legislative recommendations from the advisory
7	group to Congress for its consideration.
8	Subtitle ED —Voluntary
9	Verification Programs for Air
10	Conditioning, Furnace, Boiler,
11	Heat Pump, and Water Heater
12	Products
13	SEC. 441. VOLUNTARY VERIFICATION PROGRAMS FOR AIR
14	CONDITIONING, FURNACE, BOILER, HEAT
15	PUMP, AND WATER HEATER PRODUCTS.
16	Section 326(b) of the Energy Policy and Conserva-
17	tion Act (42 U.S.C. 6296(b)) is amended by adding at
18	the end the following:
19	"(6) Voluntary verification programs for
20	AIR CONDITIONING, FURNACE, BOILER, HEAT PUMP,
21	AND WATER HEATER PRODUCTS.—
22	"(A) RELIANCE ON VOLUNTARY PRO-
23	GRAMS.—For the purpose of verifying compli-
24	ance with energy conservation standards and
	ance with energy conservation standards and

sections 324A, 325, and 342 for covered products described in paragraphs (3), (4), (5), (9), and (11) of section 322(a) and covered equipment described in subparagraphs (B), (C), (D), (F), (I), (J), and (K) of section 340(1), the Secretary and the Administrator of the Environmental Protection Agency shall rely on voluntary verification programs that are recognized by the Secretary in accordance with subparagraph (B).

"(B) RECOGNITION OF VOLUNTARY VERIFICATION PROGRAMS.—

"(i) IN GENERAL.—Not later than 180 days after the date of enactment of this paragraph, the Secretary and the Administrator of the Environmental Protection Agency shall initiate a negotiated rule-making in accordance with subchapter III of chapter 5 of title 5, United States Code (commonly known as the 'Negotiated Rule-making Act of 1990') to develop criteria that have consensus support for achieving recognition by the Secretary as an approved voluntary verification program.

1	"(ii) MINIMUM REQUIREMENTS.—The
2	eriteria developed under clause (i) shall, at
3	a minimum, ensure that the voluntary
4	verification program—
5	"(I) is nationally recognized;
6	"(II) satisfies any applicable ele-
7	ments of—
8	"(aa) International Organi-
9	zation for Standardization stand-
10	ard numbered 17025; and
11	"(bb) any other relevant
12	International Organization for
13	Standardization standards identi-
14	fied and agreed to through the
15	negotiated rulemaking under
16	clause (i);
17	"(III) at least annually tests
18	products following the test procedures
19	established under this title to verify
20	the certified rating of a representative
21	sample of products and equipment
22	within the scope of the program;
23	"(IV) maintains a publicly avail-
24	able list of all certified products and
25	equipment and their certified ratings;

1	"(V) requires the changing of the
2	performance rating or removal of the
3	product or equipment from the pro-
4	gram if testing determines that the
5	performance rating does not meet the
6	levels the manufacturer has certified
7	to the Secretary;
8	"(VI) requires the qualification
9	of new participants in the program
10	through testing and production of test
11	reports;
12	"(VII) allows for challenge test-
13	ing of products and equipment within
14	the scope of the program;
15	"(VIII) requires program partici-
16	pants to certify the performance rat-
17	ing of all covered products and equip-
18	ment within the scope of the program
19	for the covered product or equipment;
20	"(IX) provides to the Secretary—
21	"(aa) an annual report of all
22	test results, the contents of which
23	shall be determined through the
24	negotiated rulemaking process
25	under elause (i);

1	"(bb) prompt notification
2	when program testing results
3	in
4	"(AA) the rerating of
5	the performance rating of a
6	product or equipment; or
7	"(BB) the delisting of a
8	product or equipment; and
9	"(ee) test reports, on the re-
10	quest of the Secretary or the Ad-
11	ministrator of the Environmental
12	Protection Agency, that note any
13	instructions specified by the man-
14	ufacturer or the representative of
15	the manufacturer for the purpose
16	of conducting the verification
17	testing, to be exempted from dis-
18	elosure under section 552(b)(4)
19	of title 5, United States Code
20	(commonly known as the 'Free-
21	dom of Information Act'); and
22	"(X) satisfies any additional re-
23	quirements or standards that the Sec-
24	retary and Administrator of the Envi-
25	ronmental Protection Agency shall es-

1	tablish consistent with this subpara-
2	graph.
3	"(iii) Revision of Criteria.—
4	"(I) IN GENERAL.—The Sec-
5	retary and the Administrator of the
6	Environmental Protection Agency may
7	revise the criteria established under
8	elause (ii) by initiating—
9	"(aa) a notice of proposed
10	rulemaking in accordance with
11	section 553(b) of title 5, United
12	States Code, on publication of a
13	determination in the Federal
14	Register that revisions to the cri-
15	teria are necessary; or
16	"(bb) a direct final rule in
17	accordance with section
18	553(b)(3)(B) of title 5, United
19	States Code, on publication of a
20	determination in the Federal
21	Register that revisions to the eri-
22	teria are necessary and that sub-
23	stantive opposition to the pro-
24	posed revisions is not expected.

1	"(H) EFFECT OF DIRECT FINAL
2	RULE.—
3	"(aa) Full force and ef-
4	FECT.—If the Secretary does not
5	receive adversarial comments
6	during the 30-day period fol-
7	lowing publication of the deter-
8	mination in the Federal Register
9	under subclause (I)(bb), the di-
10	reet final rule shall have full
11	force and effect.
12	"(bb) WITHDRAWAL.—If the
13	Secretary receives adversaria
14	comments during the 30-day pe-
15	riod following publication of the
16	determination in the Federal
17	Register under subclause (I)(bb)
18	the Secretary shall withdraw the
19	direct final rule and publish a no-
20	tice of proposed rulemaking in
21	accordance with subclause
22	(I)(aa).
23	"(C) Administration.

1	"(i) IN GENERAL.—The Secretary and
2	the Administrator of the Environmental
3	Protection Agency shall not require—
4	"(I) manufacturers to participate
5	in a voluntary verification program
6	described in subparagraph (A); or
7	"(H) participating manufacturers
8	to provide information that can be ob-
9	tained through a voluntary
10	verification program described in sub-
11	$\frac{\text{paragraph}}{(A)}$.
12	"(ii) List of covered products.—
13	The Secretary or the Administrator of the
14	Environmental Protection Agency may
15	maintain a publicly available list of covered
16	products and equipment certified under
17	this section that distinguishes between—
18	"(I) covered products and equip-
19	ment certified by a voluntary
20	verification program described in sub-
21	$\frac{\text{paragraph }(A)}{\text{and}}$
22	"(H) products not certified by a
23	voluntary verification program de-
24	scribed in subparagraph (A).

1	"(iii) Periodic verification test-
2	ING.—The Secretary—
3	"(I) shall not subject products or
4	equipment that are certified under a
5	voluntary verification program de-
6	scribed in subparagraph (A) to peri-
7	odic verification testing that verifies
8	the accuracy of the certified perform-
9	ance rating of the products or equip-
10	ment; but
11	"(II) may test products or equip-
12	ment described in subclause (I) if the
13	testing is necessary—
14	"(aa) to assess the overall
15	performance of a voluntary
16	verification program;
17	"(bb) to address specific
18	performance issues;
19	"(ce) to determine other per-
20	formance characteristics for use
21	in updating test procedures and
22	standards; or
23	"(dd) for other purposes
24	consistent with this title.

1	"(D) EFFECT ON OTHER AUTHORITY.—
2	Nothing in this paragraph limits the authority
3	of the Secretary or the Administrator of the
4	Environmental Protection Agency to enforce
5	compliance with any law.".
6	SEC. 431. VOLUNTARY VERIFICATION PROGRAMS FOR AIR
7	CONDITIONING, FURNACE, BOILER, HEAT
8	PUMP, AND WATER HEATER PRODUCTS.
9	Section 326(b) of the Energy Policy and Conservation
10	Act (42 U.S.C. 6296(b)) is amended by adding at the end
11	the following:
12	"(6) Voluntary verification programs for
13	AIR CONDITIONING, FURNACE, BOILER, HEAT PUMP,
14	AND WATER HEATER PRODUCTS.—
15	"(A) RELIANCE ON VOLUNTARY PRO-
16	GRAMS.—For the purpose of periodic testing to
17	verify compliance with energy conservation
18	standards and Energy Star specifications estab-
19	lished under sections 324A, 325, and 342 for cov-
20	ered products described in paragraphs (3), (4),
21	(5), (9), and (11) of section 322(a) and covered
22	equipment described in subparagraphs (B), (C),
23	(D), (F), (I), (J), and (K) of section 340(1), the
24	Secretary and the Administrator of the Environ-
25	mental Protection Agency shall rely on testing

1	conducted by voluntary verification programs
2	that are recognized by the Secretary in accord-
3	ance with subparagraph (B).
4	"(B) Recognition of voluntary
5	VERIFICATION PROGRAMS.—
6	"(i) In general.—Not later than 180
7	days after the date of enactment of this
8	paragraph, the Secretary shall initiate a
9	negotiated rulemaking in accordance with
10	subchapter III of chapter 5 of title 5,
11	United States Code (commonly known as
12	the 'Negotiated Rulemaking Act of 1990') to
13	develop criteria that have consensus support
14	for achieving recognition by the Secretary
15	as an approved voluntary verification pro-
16	gram.
17	"(ii) Minimum requirements.—The
18	criteria developed under clause (i) shall, at
19	a minimum, ensure that the voluntary
20	verification program—
21	``(I) is nationally recognized;
22	"(II) is operated by a third party
23	and not directly operated by a pro-
24	$gram\ participant;$

1	"(III) satisfies any applicable ele-
2	ments of—
3	"(aa) International Organi-
4	zation for Standardization stand-
5	ard numbered 17025; and
6	"(bb) any other relevant
7	International Organization for
8	Standardization standards identi-
9	fied and agreed to through the ne-
10	gotiated rulemaking under clause
11	(i);
12	"(IV) at least annually tests inde-
13	pendently obtained products following
14	the test procedures established under
15	this title to verify the certified rating
16	of a representative sample of products
17	and equipment within the scope of the
18	program;
19	"(V) maintains a publicly avail-
20	able list of all ratings of products sub-
21	ject to verification;
22	"(VI) requires the changing of the
23	performance rating or removal of the
24	product or equipment from the pro-
25	gram if testing determines that the

1	performance rating does not meet the
2	levels the manufacturer has certified to
3	$the \ Secretary;$
4	"(VII) requires new program par-
5	ticipants to substantiate ratings
6	through test data generated in accord-
7	ance with DOE regulations;
8	"(VIII) allows for challenge test-
9	ing of products and equipment within
10	the scope of the program;
11	"(IX) requires program partici-
12	pants to disclose the performance rat-
13	ing of all covered products and equip-
14	ment within the scope of the program
15	for the covered product or equipment;
16	"(X) provides to the Secretary—
17	"(aa) an annual report of all
18	test results, the contents of which
19	shall be determined through the
20	negotiated rulemaking process
21	under clause (i); and
22	"(bb) test reports, on the re-
23	quest of the Secretary or the Ad-
24	ministrator of the Environmental
25	Protection Agency, that note any

1	instructions specified by the man-
2	ufacturer or the representative of
3	the manufacturer for the purpose
4	of conducting the verification test-
5	ing, to be exempted from disclo-
6	sure to the extent provided under
7	section 552(b)(4) of title 5, United
8	States Code (commonly known as
9	the 'Freedom of Information Act');
10	and
11	"(XI) satisfies any additional re-
12	quirements or standards that the Sec-
13	retary and Administrator of the Envi-
14	ronmental Protection Agency shall es-
15	tablish consistent with this subpara-
16	graph.
17	"(iii) Finding required for ces-
18	SATION OF RECOGNITION.—The Secretary
19	may only cease recognition of a voluntary
20	verification program as an approved pro-
21	gram described in subparagraph (A) on a
22	finding that the program is not meeting its
23	obligations for compliance through program
24	review criteria established under this sub-
25	paragraph.

1	"(iv) Revisions.—
2	"(I) In General.—Major revi-
3	sions to voluntary verification pro-
4	gram criteria established under this
5	subparagraph shall only be made pur-
6	suant to a subsequent negotiated rule-
7	making in accordance with subchapter
8	III of chapter 5 of title 5, United
9	States Code (commonly known as the
10	'Negotiated Rulemaking Act of 1990').
11	"(II) Nonmajor revisions.—
12	"(aa) In GENERAL.—The
13	Secretary may make all other
14	nonmajor criteria revisions by
15	initiating a direct final rule in
16	accordance with section
17	553(b)(3)(B) of title 5, United
18	States Code, on a determination
19	published in the Federal Register
20	that revisions to the criteria are
21	necessary and that substantive op-
22	position to the proposed revisions
23	is not expected.
24	"(bb) Conditions for Ef-
25	FECTIVENESS.—If the Secretary

1	does not receive adversarial com-
2	ments with respect to the deter-
3	mination published under item
4	(aa) during the 30-day-period fol-
5	lowing publication of that deter-
6	mination in the Federal Register,
7	the direct final rule shall have the
8	force and effect of law.
9	"(cc) Withdrawal of final
10	RULE.—Receipt of any adver-
11	sarial comment with respect to the
12	determination published under
13	item (aa) shall require the Sec-
14	retary to withdraw the direct
15	final rule and publish—
16	"(AA) a notice of pro-
17	posed rulemaking pursuant
18	to section 553 of title 5,
19	United States Code; or
20	"(BB) a notice of pro-
21	posed rulemaking pursuant
22	to section 553 of title 5,
23	United States Code, that in-
24	cludes a determination that

1	revisions to the criteria are
2	necessary.
3	"(C) Administration.—
4	"(i) In general.—The Secretary and
5	the Administrator of the Environmental
6	Protection Agency shall not require—
7	"(I) manufacturers to participate
8	in a voluntary verification program
9	described in subparagraph (A); or
10	"(II) participating manufacturers
11	to provide information that has al-
12	ready been provided to the Secretary or
13	$the \ Administrator.$
14	"(ii) List of covered products.—
15	The Secretary or the Administrator of the
16	Environmental Protection Agency may
17	maintain a publicly available list of covered
18	products and equipment that distinguishes
19	between products that are, and are not cov-
20	ered products and equipment verified
21	through a voluntary verification program
22	$described\ in\ subparagraph\ (A);$
23	"(iii) Periodic verification test-
24	ING.—

1	"(I) In GENERAL.—The Sec-
2	retary—
3	"(aa) shall not subject prod-
4	ucts or equipment that have been
5	verification tested under a vol-
6	untary verification program de-
7	scribed in subparagraph (A) to
8	periodic verification testing that
9	verifies the accuracy of the cer-
10	tified performance rating of the
11	products or equipment; but
12	"(bb) may test products or
13	equipment described in subclause
14	(I) if the testing is necessary—
15	"(AA) to assess the over-
16	all performance of a vol-
17	untary verification program;
18	"(BB) to address spe-
19	cific performance issues;
20	"(CC) for use in updat-
21	ing test procedures and
22	standards; or
23	"(DD) for other pur-
24	poses consistent with this
25	title.

1	"(II) Additional testing.—The
2	Secretary may subject products or
3	equipment described in subclause (I) to
4	periodic verification testing outside the
5	restrictions of $subclause$ $(I)(bb)$, if
6	agreed to during the rulemaking de-
7	scribed in subparagraph (B)
8	"(D) Effect on other authority.—
9	Nothing in this paragraph limits the authority
10	of the Secretary or the Administrator of the En-
11	vironmental Protection Agency to enforce com-
12	pliance with any law.".
13	TITLE V—MISCELLANEOUS
14	SEC. 501. BUDGETARY EFFECTS.
15	The budgetary effects of this Act, for the purpose of
16	complying with the Statutory Pay-As-You-Go Act of 2010,
17	shall be determined by reference to the latest statement
18	
	titled "Budgetary Effects of PAYGO Legislation" for this
19	titled "Budgetary Effects of PAYGO Legislation" for this Act, submitted for printing in the Congressional Record
	Act, submitted for printing in the Congressional Record
20	Act, submitted for printing in the Congressional Record by the Chairman of the Senate Budget Committee, pro-
20 21	Act, submitted for printing in the Congressional Record by the Chairman of the Senate Budget Committee, pro- vided that such statement has been submitted prior to the
202122	Act, submitted for printing in the Congressional Record by the Chairman of the Senate Budget Committee, provided that such statement has been submitted prior to the vote on passage.

- 1 fiscal year only to the extent and in the amount provided
- 2 in advance in appropriations Acts.

Calendar No. 210

114TH CONGRESS **S. 720**IST SESSION [Report No. 114–130]

A BILL

To promote energy savings in residential buildings and industry, and for other purposes.

Reported with amendments September 9,2015