

**Calendar No. 151**112TH CONGRESS  
1ST SESSION**S. 1000****[Report No. 112-71]**

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

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IN THE SENATE OF THE UNITED STATES

MAY 16, 2011

Mrs. SHAHEEN (for herself, Mr. PORTMAN, Mr. COONS, and Ms. LANDRIEU) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

SEPTEMBER 6, 2011

Reported by Mr. BINGAMAN, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

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**A BILL**

To promote energy savings in residential and commercial 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 2011”.

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

Sec. 1. Short title; table of contents.

**TITLE I—BUILDINGS**

**Subtitle A—Building Energy Codes**

Sec. 101. Greater energy efficiency in building codes.

**Subtitle B—Appliance Standards**

Sec. 111. Energy conservation standards.

Sec. 112. Energy conservation standards for heat pump pool heaters.

Sec. 113. GU-24 base lamps.

Sec. 114. Efficiency standards for bottle-type water dispensers; commercial hot  
 food holding cabinets; and portable electric spas.

Sec. 115. Test procedure petition process.

Sec. 116. Amendments to home appliance test methods.

Sec. 117. Credit for Energy Star smart appliances.

Sec. 118. Video game console energy efficiency study.

Sec. 119. Refrigerator and freezer standards.

Sec. 120. Room air conditioner standards.

Sec. 121. Uniform efficiency descriptor for covered water heaters.

Sec. 122. Clothes dryers.

Sec. 123. Standards for clothes washers.

Sec. 124. Dishwashers.

Sec. 125. Standards for certain reflector lamps.

Sec. 126. Petition for amended standards.

Sec. 127. Prohibited acts.

Sec. 128. Outdoor lighting.

Sec. 129. Standards for commercial furnaces.

Sec. 130. Service over the counter; self-contained; medium temperature com-  
 mercial refrigerators.

Sec. 131. Motor market assessment and commercial awareness program.

Sec. 132. Study of compliance with energy standards for appliances.

Sec. 133. Study of direct current electricity supply in certain buildings.

Sec. 134. Technical corrections.

**Subtitle C—Worker Training and Capacity Building**

Sec. 141. Building training and assessment centers.

**TITLE II—BUILDING EFFICIENCY FINANCE**

Sec. 201. Rural energy savings program.

Sec. 202. Loan program for energy efficiency upgrades to existing buildings.

**TITLE III—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS**

**Subtitle A—Manufacturing Energy Efficiency**

Sec. 301. State partnership industrial energy efficiency revolving loan program.

Sec. 302. Coordination of research and development of energy efficient technologies for industry.

Sec. 303. Energy efficient technologies assessment.

Sec. 304. Future of Industry program.

Sec. 305. Sustainable manufacturing initiative.

Sec. 306. Study of advanced energy technology manufacturing capabilities in the United States.

Sec. 307. Industrial Technologies steering committee.

Sec. 308. Authorization of appropriations.

**Subtitle B—Supply Star**

Sec. 311. Supply Star.

**Subtitle C—Electric Motor Rebate Program**

Sec. 321. Energy saving motor control rebate program.

**TITLE IV—FEDERAL AGENCY ENERGY EFFICIENCY**

Sec. 401. Adoption of personal computer power savings techniques by Federal agencies.

Sec. 402. Availability of funds for design updates.

Sec. 403. Best practices for advanced metering.

Sec. 404. Federal energy management and data collection standard.

Sec. 405. Electric vehicle charging infrastructure.

Sec. 406. Broadening definition of renewable energy to include thermal.

Sec. 407. Study on Federal data center consolidation.

**TITLE V—MISCELLANEOUS**

Sec. 501. Budgetary effects.

Sec. 502. Advance appropriations required.

- 1                   **TITLE I—BUILDINGS**
- 2    **Subtitle A—Building Energy Codes**
- 3    **SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING**
- 4                   **CODES.**
- 5           (a) **IN GENERAL.**—Section 304 of the Energy Con-
- 6    servation and Production Act (42 U.S.C. 6833) is amend-
- 7    ed to read as follows:

1 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-**  
 2 **CIENCY CODES.**

3 **“(a) UPDATING NATIONAL MODEL BUILDING EN-**  
 4 **ERGY CODES.—**

5 **“(1) IN GENERAL.—**The Secretary shall—

6 **“(A)** support the development of national  
 7 model building energy codes, including the up-  
 8 dating of ASHRAE and IECC model building  
 9 energy codes and standards;

10 **“(B)** encourage and support the adoption  
 11 of building energy codes by States and, as ap-  
 12 propriate, by local governments that meet or ex-  
 13 ceed the national model building energy codes,  
 14 or achieve equivalent or greater energy savings;  
 15 and

16 **“(C)** support full compliance with the  
 17 State and local codes.

18 **“(2) TARGETS AND GOALS.—**

19 **“(A) IN GENERAL.—**The Secretary shall  
 20 support the updating of the national model  
 21 building energy codes for residential buildings  
 22 and commercial buildings to enable the achieve-  
 23 ment of energy savings goals established under  
 24 subparagraph (B) and the targets established  
 25 under subparagraph (C).

26 **“(B) GOALS.—**The Secretary shall—

1           “(i) establish goals of zero-net-energy  
2 for new commercial and residential build-  
3 ings by 2030; and

4           “(ii) work with State and local gov-  
5 ernments, the International Code Council,  
6 ASHRAE, and other interested parties to  
7 achieve these goals through a combination  
8 of national model building energy codes,  
9 appliance and lighting standards, and re-  
10 search, development, and demonstration of  
11 new efficiency and clean energy tech-  
12 nologies.

13       “(C) TARGETS.—

14           “(i) IN GENERAL.—The Secretary  
15 shall support the updating of national  
16 model building energy codes by estab-  
17 lishing 1 or more aggregate energy savings  
18 targets to achieve the goals set under sub-  
19 paragraph (B).

20           “(ii) SEPARATE TARGETS.—The Sec-  
21 retary may establish separate targets for  
22 commercial and residential buildings.

23           “(iii) BASELINES.—The baseline for  
24 updating national model codes shall be the  
25 2009 IECC for residential buildings and

1 ASHRAE Standard 90.1–2010 for com-  
2 mercial buildings.

3 “(iv) SPECIFIC YEARS.—

4 “(I) IN GENERAL.—Targets for  
5 specific years shall be established and  
6 revised by the Secretary through rule-  
7 making and coordinated with the  
8 IECC and ASHRAE Standard 90.1  
9 cycles at a level that is—

10 “(aa) at the maximum level  
11 of energy efficiency that is tech-  
12 nologically feasible and life-cycle  
13 cost effective, while accounting  
14 for the economic considerations  
15 under subparagraph (E);

16 “(bb) higher than the pre-  
17 ceeding target; and

18 “(cc) on a path to achieving  
19 zero-net-energy buildings.

20 “(II) INITIAL TARGETS.—Not  
21 later than 1 year after the date of en-  
22 actment of this clause, the Secretary  
23 shall establish initial targets under  
24 this subparagraph.

1                   “(III) DIFFERENT TARGET  
2                   YEARS.—Subject to subelause (I),  
3                   prior to the applicable year, the Sec-  
4                   retary may set a different target year  
5                   for any of model codes described in  
6                   elause (i) if the Secretary determines  
7                   that a higher target cannot be met.

8                   “(IV) SMALL BUSINESS.—When  
9                   establishing targets under this sub-  
10                  paragraph through rulemaking, the  
11                  Secretary shall ensure compliance  
12                  with the Small Business Regulatory  
13                  Enforcement Fairness Act of 1996 (~~5~~  
14                  U.S.C. 601 note; Public Law 104-  
15                  121).

16                  “(D) APPLIANCE STANDARDS AND OTHER  
17                  FACTORS AFFECTING BUILDING ENERGY USE.—  
18                  In establishing building code targets under sub-  
19                  paragraph (C), the Secretary shall develop and  
20                  adjust the targets in recognition of potential  
21                  savings and costs relating to—

22                         “(i) efficiency gains made in appli-  
23                         ances, lighting, windows, and insulation;

1           “(ii) advancement of distributed gen-  
2           eration and on-site renewable power gen-  
3           eration technologies;

4           “(iii) equipment improvements for  
5           heating, cooling, and ventilation systems;

6           “(iv) building management systems  
7           and SmartGrid technologies to reduce en-  
8           ergy use; and

9           “(v) other technologies, practices, and  
10          building systems that the Secretary con-  
11          siders appropriate regarding building plug  
12          load and other energy uses.

13          “(E) ECONOMIC CONSIDERATIONS.—In es-  
14          tablishing and revising building code targets  
15          under subparagraph (C), the Secretary shall  
16          consider the economic feasibility of achieving  
17          the proposed targets established under this sec-  
18          tion and the potential costs and savings for con-  
19          sumers and building owners, including a return  
20          on investment analysis.

21          “(3) TECHNICAL ASSISTANCE TO MODEL CODE-  
22          SETTING AND STANDARD DEVELOPMENT ORGANIZA-  
23          TIONS.—

24                 “(A) IN GENERAL.—The Secretary shall,  
25                 on a timely basis, provide technical assistance



1 to model code-setting and standard development  
2 organizations.

3 “(B) ASSISTANCE.—The assistance shall  
4 include, as requested by the organizations, tech-  
5 nical assistance in—

6 “(i) evaluating code or standards pro-  
7 posals or revisions;

8 “(ii) building energy analysis and de-  
9 sign tools;

10 “(iii) building demonstrations;

11 “(iv) developing definitions of energy  
12 use intensity and building types for use in  
13 model codes or in evaluating the efficiency  
14 impacts of the codes;

15 “(v) performance-based standards;  
16 and

17 “(vi) evaluating economic consider-  
18 ations under paragraph (2)(E).

19 “(C) AMENDMENT PROPOSALS.—The Sec-  
20 retary may submit timely code and standard  
21 amendment proposals to the model code-setting  
22 and standard development organizations, with  
23 supporting evidence, sufficient to enable the  
24 model building energy codes and standards to

1 meet the targets established under paragraph  
2 (2)(C).

3 “(D) ANALYSIS METHODOLOGY.—The Sec-  
4 retary shall make publicly available the entire  
5 calculation methodology (including input as-  
6 sumptions and data) used by the Secretary to  
7 estimate the energy savings of code or standard  
8 proposals and revisions.

9 “(4) DETERMINATION AND ESTABLISHMENT.—

10 “(A) REVISION OF MODEL BUILDING  
11 CODES AND STANDARDS.—If the provisions of  
12 the IECC or ASHRAE Standard 90.1 regard-  
13 ing building energy use are revised, the Sec-  
14 retary shall make a preliminary determination  
15 not later than 90 days after the date of the re-  
16 vision, and a final determination not later than  
17 1 year after the date of the revision, on whether  
18 the revision will—

19 “(i) improve energy efficiency in  
20 buildings compared to the existing national  
21 model building energy code; and

22 “(ii) meet the applicable targets under  
23 paragraph (2)(C).

24 “(B) CODES OR STANDARDS NOT MEETING  
25 TARGETS.—

1           “(i) IN GENERAL.—If the Secretary  
2 makes a preliminary determination under  
3 subparagraph (A)(ii) that a code or stand-  
4 ard does not meet the targets established  
5 under paragraph (2)(C), the Secretary may  
6 at the same time provide the model code or  
7 standard developer with proposed changes  
8 that would result in a model code that  
9 meets the targets and with supporting evi-  
10 dence, taking into consideration—

11           “(I) whether the modified code is  
12 technically feasible and life-cycle cost  
13 effective;

14           “(II) available appliances, tech-  
15 nologies, materials, and construction  
16 practices; and

17           “(III) potential costs, savings  
18 and other benefits for consumers and  
19 building owners, including the impact  
20 on overall building ownership and op-  
21 erating costs.

22           “(ii) INCORPORATION OF CHANGES.—

23           “(I) IN GENERAL.—On receipt of  
24 the proposed changes, the model code  
25 or standard developer shall have an

1 additional 180 days to incorporate  
2 changes into the model code or stand-  
3 ard.

4 “(H) FINAL DETERMINATION.—  
5 A final determination under subpara-  
6 graph (A) shall be on the modified  
7 model code or standard.

8 “(C) POSITIVE DETERMINATIONS.—If the  
9 Secretary makes positive final determinations  
10 under clauses (i) and (ii) of subparagraph (A)  
11 or under clause (i) of subparagraph (A) if the  
12 applicable target has not been established, the  
13 revised IECC or ASHRAE Standard 90.1 shall  
14 be established as the relevant national model  
15 building energy code.

16 “(D) ESTABLISHMENT BY SECRETARY.—  
17 “(i) IN GENERAL.—If the Secretary  
18 makes a negative final determination under  
19 subparagraph (A)(ii), the Secretary shall  
20 at the same time establish a modified na-  
21 tional model building energy code.

22 “(ii) CODES OR STANDARDS NOT UP-  
23 DATED.—If the IECC or ASHRAE Stand-  
24 ard 90.1 is not revised by a target date  
25 under paragraph (2), the Secretary shall,

1 not later than 90 days after the target  
2 date, issue a draft of, and not later than  
3 1 year after the target date, establish, a  
4 modified national model building energy  
5 code.

6 “(iii) REQUIREMENTS.—Any national  
7 model building energy code established  
8 under this subparagraph shall—

9 “(I) meet the targets established  
10 under paragraph (2);

11 “(II) achieve the maximum level  
12 of energy savings that is techno-  
13 logically feasible and life-cycle cost-ef-  
14 fective, while accounting for the eco-  
15 nomic considerations under paragraph  
16 (2)(E); and

17 “(III) be based on the latest edi-  
18 tion of the IECC or ASHRAE Stand-  
19 ard 90.1, including any subsequent  
20 amendments, addenda, or additions,  
21 but may also consider other model  
22 codes or standards.

23 “(5) ADMINISTRATION.—In carrying out this  
24 section, the Secretary shall—

1           “(A) publish notice of targets, determina-  
2           tions, and national model building energy codes  
3           under this section in the Federal Register to  
4           provide an explanation of and the basis for such  
5           actions, including any supporting modeling,  
6           data, assumptions, protocols, and cost-benefit  
7           analysis, including return on investment; and

8           “(B) provide an opportunity for public  
9           comment on targets, determinations, and na-  
10          tional model building energy codes under this  
11          section.

12          “(b) STATE CERTIFICATION OF BUILDING ENERGY  
13          CODE UPDATES.—

14                 “(1) REVIEW AND UPDATING OF CODES BY  
15                 EACH STATE.—

16                 “(A) IN GENERAL.—Not later than 2 years  
17                 after the date on which a national model build-  
18                 ing energy code is established or revised under  
19                 subsection (a), each State shall certify whether  
20                 or not the State has reviewed and updated the  
21                 energy provisions of the building code of the  
22                 State.

23                 “(B) DEMONSTRATION.—The certification  
24                 shall include a demonstration of whether or not

1 the code provisions that are in effect through-  
 2 out the State—

3 “(i) meet or exceed the revised model  
 4 code; or

5 “(ii) achieve equivalent or greater en-  
 6 ergy savings.

7 “(C) NO MODEL CODE UPDATE.—If the  
 8 Secretary fails to revise a national model build-  
 9 ing energy code by the date specified in sub-  
 10 section (a)(4), each State shall, not later than  
 11 2 years after the specified date, certify whether  
 12 or not the State has reviewed and updated the  
 13 energy provisions of the building code of the  
 14 State to meet or exceed the target in subsection  
 15 (a)(2).

16 “(2) VALIDATION BY SECRETARY.—Not later  
 17 than 90 days after a State certification under para-  
 18 graph (1), the Secretary shall—

19 “(A) determine whether the code provi-  
 20 sions of the State meet the criteria specified in  
 21 paragraph (1); and

22 “(B) if the determination is positive, vali-  
 23 date the certification.

24 “(e) IMPROVEMENTS IN COMPLIANCE WITH BUILD-  
 25 ING ENERGY CODES.—

1           “(1) REQUIREMENT.—

2                   “(A) IN GENERAL.—Not later than 3 years  
3 after the date of a certification under sub-  
4 section (b), each State shall certify whether or  
5 not the State has—

6                           “(i) achieved full compliance under  
7 paragraph (3) with the certified State  
8 building energy code or with the associated  
9 national model building energy code; or

10                           “(ii) made significant progress under  
11 paragraph (4) toward achieving compliance  
12 with the certified State building energy  
13 code or with the associated national model  
14 building energy code.

15                   “(B) REPEAT CERTIFICATIONS.—If the  
16 State certifies progress toward achieving com-  
17 pliance, the State shall repeat the certification  
18 until the State certifies that the State has  
19 achieved full compliance.

20           “(2) MEASUREMENT OF COMPLIANCE.—A cer-  
21 tification under paragraph (1) shall include docu-  
22 mentation of the rate of compliance based on—

23                           “(A) independent inspections of a random  
24 sample of the buildings covered by the code in  
25 the preceding year; or



1           “(B) an alternative method that yields an  
2 accurate measure of compliance.

3           “(3) ACHIEVEMENT OF COMPLIANCE.—A State  
4 shall be considered to achieve full compliance under  
5 paragraph (1) if—

6           “(A) at least 90 percent of building space  
7 covered by the code in the preceding year sub-  
8 stantially meets all the requirements of the ap-  
9 plicable code specified in paragraph (1), or  
10 achieves equivalent or greater energy savings  
11 level; or

12           “(B) the estimated excess energy use of  
13 buildings that did not meet the applicable code  
14 specified in paragraph (1) in the preceding  
15 year, compared to a baseline of comparable  
16 buildings that meet this code, is not more than  
17 5 percent of the estimated energy use of all  
18 buildings covered by this code during the pre-  
19 ceeding year.

20           “(4) SIGNIFICANT PROGRESS TOWARD  
21 ACHIEVEMENT OF COMPLIANCE.—A State shall be  
22 considered to have made significant progress toward  
23 achieving compliance for purposes of paragraph (1)  
24 if the State—

1           “(A) has developed and is implementing a  
2           plan for achieving compliance during the 8-  
3           year-period beginning on the date of enactment  
4           of this paragraph, including annual targets for  
5           compliance and active training and enforcement  
6           programs; and

7           “(B) has met the most recent target under  
8           subparagraph (A).

9           “(5) VALIDATION BY SECRETARY.—Not later  
10          than 90 days after a State certification under para-  
11          graph (1), the Secretary shall—

12           “(A) determine whether the State has  
13           demonstrated meeting the criteria of this sub-  
14           section, including accurate measurement of  
15           compliance; and

16           “(B) if the determination is positive, vali-  
17           date the certification.

18          “(d) STATES THAT DO NOT MEET TARGETS.—

19           “(1) REPORTING.—A State that has not made  
20           a certification required under subsection (b) or (c)  
21           by the applicable deadline shall submit to the Sec-  
22           retary a report on—

23           “(A) the status of the State with respect  
24           to meeting the requirements and submitting the  
25           certification; and

1           “(B) a plan for meeting the requirements  
2           and submitting the certification.

3           “(2) STATES OUT OF CONFORMANCE.—Any  
4           State for which the Secretary has not accepted a  
5           certification by a deadline under subsection (b) or  
6           (c) shall be considered out of conformance with this  
7           section until such time as the State submits and the  
8           Secretary validates the required certification.

9           “(3) LOCAL GOVERNMENT.—In any State that  
10          is out of conformance with this section, a local gov-  
11          ernment may be considered in conformance with this  
12          section by meeting the certification requirements  
13          under subsections (b) and (c).

14          “(4) FEDERAL SUPPORT.—The Secretary shall,  
15          as appropriate, make conformance of a jurisdiction  
16          with this section a criterion in grants or other sup-  
17          port for code adoption and compliance activities for  
18          State and local governments.

19          “(5) ANNUAL REPORTS BY SECRETARY.—

20                 “(A) IN GENERAL.—The Secretary shall  
21                 annually submit to Congress, and publish in the  
22                 Federal Register, a report on—

23                         “(i) the status of national model  
24                         building energy codes;

1           “(ii) the status of code adoption and  
2           compliance in the States;

3           “(iii) implementation of this section;  
4           and

5           “(iv) improvements in energy savings  
6           over time as result of the goals established  
7           under subsection (a)(2)(B) and targets es-  
8           tablished under subsection (a)(2)(C).

9           “(B) IMPACTS.—The report shall include  
10          estimates of impacts of past action under this  
11          section; and potential impacts of further action;  
12          on—

13               “(i) upfront financial and construction  
14               costs; cost benefits and returns (using in-  
15               vestment analysis); and lifetime energy use  
16               for buildings;

17               “(ii) resulting energy costs to individ-  
18               uals and businesses; and

19               “(iii) resulting overall annual building  
20               ownership and operating costs.

21          “(e) TECHNICAL ASSISTANCE TO STATES.—The Sec-  
22          retary shall provide technical assistance to States to imple-  
23          ment the requirements of this section, including proce-  
24          dures and technical analysis for States—

1           “(1) to demonstrate that the code provisions of  
2 the States achieve equivalent or greater energy sav-  
3 ings than the national model building energy codes;

4           “(2) to document the rate of compliance with a  
5 building energy code; and

6           “(3) to improve and implement State residential  
7 and commercial building energy codes or otherwise  
8 promote the design and construction of energy effi-  
9 cient buildings.

10          “(f) AVAILABILITY OF INCENTIVE FUNDING.—

11           “(1) IN GENERAL.—The Secretary shall provide  
12 incentive funding to States—

13           “(A) to implement the requirements of this  
14 section;

15           “(B) to improve and implement residential  
16 and commercial building energy codes, including  
17 increasing and verifying compliance with the  
18 codes and training of State and local building  
19 code officials to implement and enforce the  
20 codes; and

21           “(C) to promote building energy efficiency  
22 through the use of the codes.

23          “(2) ADDITIONAL FUNDING.—Additional fund-  
24 ing shall be provided under this subsection for im-  
25 plementation of a plan to achieve and document full

1 compliance with residential and commercial building  
2 energy codes under subsection (c)—

3 “(A) to a State that is in conformance  
4 with this section under subsection (d)(2); and

5 “(B) in a State which is not eligible under  
6 subparagraph (A); to a local government that is  
7 in conformance with this section under sub-  
8 section (d)(3).

9 “(3) TRAINING.—Of the amounts made avail-  
10 able under this subsection, the State may use  
11 amounts required, but not to exceed \$750,000 for a  
12 State, to train State and local building code officials  
13 to implement and enforce codes described in para-  
14 graph (2).

15 “(4) LOCAL GOVERNMENTS.—States may share  
16 grants under this subsection with local governments  
17 that implement and enforce the codes.

18 “(g) VOLUNTARY ADVANCED STANDARDS.—

19 “(1) IN GENERAL.—The Secretary shall provide  
20 technical and financial support for the development  
21 of voluntary advanced standards for residential and  
22 commercial buildings for use in—

23 “(A) green building design;

24 “(B) voluntary and market transformation  
25 programs;

1                   “(C) incentive criteria; and

2                   “(D) voluntary adoption by States.

3                   “(2) TARGETS.—The voluntary advanced stand-  
4                   ards shall be designed to achieve energy savings of  
5                   at least 30 percent compared to the national model  
6                   building energy codes.

7                   “(3) PREFERENCE.—In carrying out this sub-  
8                   section, the Secretary shall give preference to ad-  
9                   vanced standards developed by the International  
10                  Code Council and by ASHRAE.

11                  “(h) STUDIES.—The Secretary, in consultation with  
12                  building science experts from the National Laboratories  
13                  and institutions of higher education, designers and build-  
14                  ers of energy-efficient residential and commercial build-  
15                  ings, code officials, and other stakeholders, shall under-  
16                  take a study of the feasibility, impact, and merit of—

17                   “(1) code improvements that would require that  
18                   buildings be designed, sited, and constructed in a  
19                   manner that makes the buildings more adaptable in  
20                   the future to become zero-net-energy after initial  
21                   construction, as advances are achieved in energy-sav-  
22                   ing technologies;

23                   “(2) code procedures to incorporate measured  
24                   lifetimes, not just first-year energy use, in trade-offs  
25                   and performance calculations; and

1           “(3) legislative options for increasing energy  
2 savings from building energy codes, including addi-  
3 tional incentives for effective State and local action,  
4 and verification of compliance with and enforcement  
5 of a code other than by a State or local government.

6           “(i) AUTHORIZATION OF APPROPRIATIONS.—There  
7 are authorized to be appropriated to carry out this sub-  
8 section—

9           “(1) \$100,000,000 for each of fiscal years 2012  
10 through 2015; and

11           “(2) such sums as are necessary for fiscal year  
12 2016 and each fiscal year thereafter.”.

13           “(b) DEFINITION OF IECC.—Section 303 of the En-  
14 ergy Conservation and Production Act (42 U.S.C. 6832)  
15 is amended by adding at the end the following:

16           “(17) IECC.—The term ‘IECC’ means the  
17 International Energy Conservation Code.”.

## 18       **Subtitle B—Appliance Standards**

### 19       **SEC. 111. ENERGY CONSERVATION STANDARDS.**

20           “(a) DEFINITION OF ENERGY CONSERVATION STAND-  
21 ARD.—Section 321 of the Energy Policy and Conservation  
22 Act (42 U.S.C. 6291) is amended—

23           “(1) by striking paragraph (6) and inserting the  
24 following:

25           “(6) ENERGY CONSERVATION STANDARD.—



1           “(A) IN GENERAL.—The term ‘energy con-  
2           servation standard’ means  $\pm$  or more perform-  
3           ance standards that—

4                   “(i) for covered products (excluding  
5                   clothes washers, dishwashers, showerheads,  
6                   faucets, water closets, and urinals); pre-  
7                   scribe a minimum level of energy efficiency  
8                   or a maximum quantity of energy use, de-  
9                   termined in accordance with test proce-  
10                  dures prescribed under section 323;

11                  “(ii) for showerheads, faucets, water  
12                  closets, and urinals; prescribe a minimum  
13                  level of water efficiency or a maximum  
14                  quantity of water use, determined in ac-  
15                  cordance with test procedures prescribed  
16                  under section 323; and

17                  “(iii) for clothes washers and dish-  
18                  washers—

19                           “(I) prescribe a minimum level of  
20                           energy efficiency or a maximum quan-  
21                           tity of energy use, determined in ac-  
22                           cordance with test procedures pre-  
23                           scribed under section 323; and

24                           “(II) include a minimum level of  
25                           water efficiency or a maximum quan-

1                   tity of water use, determined in ac-  
2                   cordance with those test procedures.

3                   “(B) INCLUSIONS.—The term ‘energy con-  
4                   servation standard’ includes—

5                   “(i) 1 or more design requirements, if  
6                   the requirements were established—

7                   “(I) on or before the date of en-  
8                   actment of this subclause;

9                   “(II) as part of a direct final rule  
10                  under section 325(p)(4); or

11                  “(III) as part of a final rule pub-  
12                  lished on or after January 1, 2012;  
13                  and

14                  “(ii) any other requirements that the  
15                  Secretary may prescribe under section  
16                  325(r).

17                  “(C) EXCLUSION.—The term ‘energy con-  
18                  servation standard’ does not include a perform-  
19                  ance standard for a component of a finished  
20                  covered product, unless regulation of the com-  
21                  ponent is specifically authorized or established  
22                  pursuant to this title.”; and

23                  (2) by adding at the end the following:

24                  “(67) EER.—The term ‘EER’ means energy  
25                  efficiency ratio.

1           “(68) HSPF.—The term ‘HSPF’ means heat-  
2           ing seasonal performance factor.”.

3           (b) EER AND HSPF TEST PROCEDURES.—Section  
4           323(b) of the Energy Policy and Conservation Act (42  
5           U.S.C. 6293(b)) is amended by adding at the end the fol-  
6           lowing:

7           “(19) EER AND HSPF TEST PROCEDURES.—

8           “(A) IN GENERAL.—Subject to subpara-  
9           graph (B), for purposes of residential central  
10           air conditioner and heat pump standards that  
11           take effect on or before January 1, 2015—

12           “(i) the EER shall be tested at an  
13           outdoor test temperature of 95 degrees  
14           Fahrenheit; and

15           “(ii) the HSPF shall be calculated  
16           based on Region IV conditions.

17           “(B) REVISIONS.—The Secretary may re-  
18           vise the EER outdoor test temperature and the  
19           conditions for HSPF calculations as part of any  
20           rulemaking to revise the central air conditioner  
21           and heat pump test method.”.

22           (c) CENTRAL AIR CONDITIONERS AND HEAT  
23           PUMPS.—Section 325(d) of the Energy Policy and Con-  
24           servation Act (42 U.S.C. 6295(d)) is amended by adding  
25           at the end the following:

1           “(4) CENTRAL AIR CONDITIONERS AND HEAT  
 2           PUMPS (EXCEPT THROUGH-THE-WALL CENTRAL AIR  
 3           CONDITIONERS, THROUGH-THE-WALL CENTRAL AIR  
 4           CONDITIONING HEAT PUMPS, AND SMALL DUCT,  
 5           HIGH VELOCITY SYSTEMS) MANUFACTURED ON OR  
 6           AFTER JANUARY 1, 2015.—

7           “(A) BASE NATIONAL STANDARDS.—

8           “(i) SEASONAL ENERGY EFFICIENCY  
 9           RATIO.—The seasonal energy efficiency  
 10           ratio of central air conditioners and central  
 11           air conditioning heat pumps manufactured  
 12           on or after January 1, 2015, shall not be  
 13           less than the following:

14                   “(I) Split Systems: 13 for central  
 15                   air conditioners and 14 for heat  
 16                   pumps:

17                   “(II) Single Package Systems:  
 18                   14.

19           “(ii) HEATING SEASONAL PERFORM-  
 20           ANCE FACTOR.—The heating seasonal per-  
 21           formance factor of central air conditioning  
 22           heat pumps manufactured on or after Jan-  
 23           uary 1, 2015, shall not be less than the  
 24           following:

25                   “(I) Split Systems: 8.2.

1                   “(H) Single Package Systems:

2                   8.0.

3                   “(B) REGIONAL STANDARDS.—

4                   “(i) SEASONAL ENERGY EFFICIENCY  
5                   RATIO.—The seasonal energy efficiency  
6                   ratio of central air conditioners and central  
7                   air conditioning heat pumps manufactured  
8                   on or after January 1, 2015, and installed  
9                   in States having historical average annual,  
10                  population weighted, heating degree days  
11                  less than 5,000 (specifically the States of  
12                  Alabama, Arizona, Arkansas, California,  
13                  Delaware, Florida, Georgia, Hawaii, Ken-  
14                  tucky, Louisiana, Maryland, Mississippi,  
15                  Nevada, New Mexico, North Carolina,  
16                  Oklahoma, South Carolina, Tennessee,  
17                  Texas, and Virginia) or in the District of  
18                  Columbia, the Commonwealth of Puerto  
19                  Rico, or any other territory or possession  
20                  of the United States shall not be less than  
21                  the following:

22                               “(I) Split Systems: 14 for central  
23                               air conditioners and 14 for heat  
24                               pumps.

1                   “(H) Single Package Systems:  
2                   14.

3                   “(ii) ENERGY EFFICIENCY RATIO.—  
4                   The energy efficiency ratio of central air  
5                   conditioners (not including heat pumps)  
6                   manufactured on or after January 1, 2015,  
7                   and installed in the State of Arizona, Cali-  
8                   fornia, New Mexico, or Nevada shall be not  
9                   less than the following:

10                   “(I) Split Systems: 12.2 for split  
11                   systems having a rated cooling capae-  
12                   ity less than 45,000 BTU per hour  
13                   and 11.7 for products having a rated  
14                   cooling capacity equal to or greater  
15                   than 45,000 BTU per hour.

16                   “(H) Single Package Systems:  
17                   11.0.

18                   “(iii) APPLICATION OF SUBSECTION  
19                   (o)(6).—Subsection (o)(6) shall apply to  
20                   the regional standards set forth in this  
21                   subparagraph.

22                   “(C) AMENDMENT OF STANDARDS.—

23                   “(i) IN GENERAL.—Not later than  
24                   January 1, 2017, the Secretary shall pub-  
25                   lish a final rule to determine whether the

1 standards in effect for central air condi-  
2 tioners and central air conditioning heat  
3 pumps should be amended.

4 “(ii) APPLICATION.—The rule shall  
5 provide that any amendments shall apply  
6 to products manufactured on or after Jan-  
7 uary 1, 2022.

8 “(D) CONSIDERATION OF ADDITIONAL  
9 PERFORMANCE STANDARDS OR EFFICIENCY  
10 CRITERIA.—

11 “(i) FORUM.—Not later than 4 years  
12 in advance of the expected publication date  
13 of a final rule for central air conditioners  
14 and heat pumps under subparagraph (C),  
15 the Secretary shall convene and facilitate a  
16 forum for interested persons that are fairly  
17 representative of relevant points of view  
18 (including representatives of manufactur-  
19 ers of the covered product, States, and effi-  
20 ciency advocates), as determined by the  
21 Secretary, to consider adding additional  
22 performance standards or efficiency cri-  
23 teria in the forthcoming rule.

24 “(ii) RECOMMENDATION.—If, within 1  
25 year of the initial convening of such a

1 forum, the Secretary receives a rec-  
2 ommendation submitted jointly by such  
3 representative interested persons to add 1  
4 or more performance standards or effi-  
5 ciency criteria, the Secretary shall incor-  
6 porate the performance standards or effi-  
7 ciency criteria in the rulemaking process,  
8 and, if justified under the criteria estab-  
9 lished in this section, incorporate such per-  
10 formance standards or efficiency criteria in  
11 the revised standard.

12 “(iii) NO RECOMMENDATION.—If no  
13 such joint recommendation is made within  
14 1 year of the initial convening of such a  
15 forum, the Secretary may add additional  
16 performance standards or efficiency cri-  
17 teria if the Secretary finds that the bene-  
18 fits substantially exceed the burdens of the  
19 action.

20 “(E) NEW CONSTRUCTION LEVELS.—

21 “(i) IN GENERAL.—As part of any  
22 final rule concerning central air condi-  
23 tioner and heat pump standards published  
24 after June 1, 2013, the Secretary shall de-  
25 termine if the building code levels specified



1 in section 327(f)(3)(C) should be amended  
 2 subject to meeting the criteria of sub-  
 3 section (e) when applied specifically to new  
 4 construction.

5 “(ii) EFFECTIVE DATE.—Any amend-  
 6 ed levels shall not take effect before Janu-  
 7 ary 1, 2018.

8 “(iii) AMENDED LEVELS.—The final  
 9 rule shall contain the amended levels, if  
 10 any.”.

11 (d) ~~THROUGH-THE-WALL CENTRAL AIR CONDI-~~  
 12 ~~TIONERS, THROUGH-THE-WALL CENTRAL AIR CONDI-~~  
 13 ~~TIONING HEAT PUMPS, AND SMALL DUCT, HIGH VELOC-~~  
 14 ~~ITY SYSTEMS.—~~Section 325(d) of the Energy Policy and  
 15 Conservation Act (42 U.S.C. 6295(d)) (as amended by  
 16 subsection (e)) is amended by adding at the end the fol-  
 17 lowing:

18 “(5) ~~STANDARDS FOR THROUGH-THE-WALL~~  
 19 ~~CENTRAL AIR CONDITIONERS, THROUGH-THE-WALL~~  
 20 ~~CENTRAL AIR CONDITIONING HEAT PUMPS, AND~~  
 21 ~~SMALL DUCT, HIGH VELOCITY SYSTEMS.—~~

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

23 “(i) ~~SMALL DUCT, HIGH VELOCITY~~  
 24 ~~SYSTEM.—~~The term ‘small duct, high ve-  
 25 locity system’ means a heating and cooling

1 product that contains a blower and indoor  
2 coil combination that—

3 “(I) is designed for, and pro-  
4 duces, at least 1.2 inches of external  
5 static pressure when operated at the  
6 certified air volume rate of 220–350  
7 CFM per rated ton of cooling; and

8 “(II) when applied in the field,  
9 uses high velocity room outlets gen-  
10 erally greater than 1,000 fpm that  
11 have less than 6.0 square inches of  
12 free area.

13 “(ii) ~~THROUGH-THE-WALL CENTRAL~~  
14 ~~AIR CONDITIONER; THROUGH-THE-WALL~~  
15 ~~CENTRAL AIR CONDITIONING HEAT~~  
16 ~~PUMP.—The terms ‘through-the-wall cen-~~  
17 ~~tral air conditioner’ and ‘through-the-wall~~  
18 ~~central air conditioning heat pump’ mean a~~  
19 ~~central air conditioner or heat pump, re-~~  
20 ~~spectively, that is designed to be installed~~  
21 ~~totally or partially within a fixed-size open-~~  
22 ~~ing in an exterior wall; and—~~

23 “(I) is not weatherized;

1           “(II) is clearly and permanently  
2 marked for installation only through  
3 an exterior wall;

4           “(III) has a rated cooling capae-  
5 ity no greater than 30,000 Btu/hr;

6           “(IV) exchanges all of its outdoor  
7 air across a single surface of the  
8 equipment cabinet; and

9           “(V) has a combined outdoor air  
10 exchange area of less than 800 square  
11 inches (split systems) or less than  
12 1,210 square inches (single packaged  
13 systems) as measured on the surface  
14 area described in subelause (IV).

15           “(iii) REVISION.—The Secretary may  
16 revise the definitions contained in this sub-  
17 paragraph through publication of a final  
18 rule.

19           “(B) SMALL-DUCT HIGH-VELOCITY SYS-  
20 TEMS.—

21           “(i) SEASONAL ENERGY EFFICIENCY  
22 RATIO.—The seasonal energy efficiency  
23 ratio for small-duct high-velocity systems  
24 shall be not less than 11.00 for products

1 manufactured on or after January 23,  
2 2006.

3 “(ii) HEATING SEASONAL PERFORM-  
4 ANCE FACTOR.—The heating seasonal per-  
5 formance factor for small-duct high-veloc-  
6 ity systems shall be not less than 6.8 for  
7 products manufactured on or after Janu-  
8 ary 23, 2006.

9 “(C) RULEMAKING.—

10 “(i) IN GENERAL.—Not later than  
11 June 30, 2011, the Secretary shall publish  
12 a final rule to determine whether stand-  
13 ards for through-the-wall central air condi-  
14 tioners, through-the-wall central air condi-  
15 tioning heat pumps and small duct, high  
16 velocity systems should be amended.

17 “(ii) APPLICATION.—The rule shall  
18 provide that any new or amended standard  
19 shall apply to products manufactured on or  
20 after June 30, 2016.”.

21 (e) FURNACES.—Section 325(f) of the Energy Policy  
22 and Conservation Act (42 U.S.C. 6295(f)) is amended by  
23 adding at the end the following:

24 “(5) NON-WEATHERIZED FURNACES (INCLUD-  
25 ING MOBILE HOME FURNACES, BUT NOT INCLUDING

1 BOILERS) MANUFACTURED ON OR AFTER MAY 1,  
 2 2013, AND WEATHERIZED FURNACES MANUFAC-  
 3 TURED ON OR AFTER JANUARY 1, 2015.—

4 “(A) BASE NATIONAL STANDARDS.—

5 “(i) NON-WEATHERIZED FURNACES.—

6 The annual fuel utilization efficiency of  
 7 non-weatherized furnaces manufactured on  
 8 or after May 1, 2013, shall be not less  
 9 than the following:

10 “(I) Gas furnaces, a level deter-

11 mined by the Secretary in a final rule  
 12 published not later than June 30,  
 13 2011.

14 “(II) Oil furnaces, 83 percent.

15 “(ii) WEATHERIZED FURNACES.—The

16 annual fuel utilization efficiency of weath-  
 17 erized gas furnaces manufactured on or  
 18 after January 1, 2015, shall be not less  
 19 than 81 percent.

20 “(B) REGIONAL STANDARD.—

21 “(i) ANNUAL FUEL UTILIZATION EF-

22 FICIENCY.—Not later than June 30, 2011,  
 23 the Secretary shall—

24 “(I) publish a final rule deter-

25 mining whether to establish a stand-

1           ard for the annual fuel utilization effi-  
2           ciency of non-weatherized gas fur-  
3           naces manufactured on or after May  
4           1, 2013, and installed in States hav-  
5           ing historical average annual, popu-  
6           lation weighted, heating degree days  
7           equal to or greater than 5,000 (spe-  
8           cifically the States of Alaska, Colo-  
9           rado, Connecticut, Idaho, Illinois, In-  
10          diana, Iowa, Kansas, Maine, Massa-  
11          chusetts, Michigan, Minnesota, Mis-  
12          souri, Montana, Nebraska, New  
13          Hampshire, New Jersey, New York,  
14          North Dakota, Ohio, Oregon, Penn-  
15          sylvania, Rhode Island, South Dakota,  
16          Utah, Vermont, Washington, West  
17          Virginia, Wisconsin, and Wyoming);  
18          and

19               “(H) include in the final rule de-  
20               scribed in subclause (I) any regional  
21               standard established under this sub-  
22               paragraph.

23               “(ii) APPLICATION OF SUBSECTION  
24               (o)(6).—Subsection (o)(6) shall apply to

1 any regional standard established under  
2 this subparagraph.

3 ~~“(C) AMENDMENT OF STANDARDS.—~~

4 ~~“(i) NON-WEATHERIZED FURNACES.—~~

5 ~~“(I) IN GENERAL.—Not later~~  
6 ~~than January 1, 2014, the Secretary~~  
7 ~~shall publish a final rule to determine~~  
8 ~~whether the standards in effect for~~  
9 ~~non-weatherized furnaces should be~~  
10 ~~amended.~~

11 ~~“(II) APPLICATION.—The rule~~

12 ~~shall provide that any amendments~~  
13 ~~shall apply to products manufactured~~  
14 ~~on or after January 1, 2019.~~

15 ~~“(ii) WEATHERIZED FURNACES.—~~

16 ~~“(I) IN GENERAL.—Not later~~

17 ~~than January 1, 2017, the Secretary~~  
18 ~~shall publish a final rule to determine~~  
19 ~~whether the standard in effect for~~  
20 ~~weatherized furnaces should be~~  
21 ~~amended.~~

22 ~~“(II) APPLICATION.—The rule~~

23 ~~shall provide that any amendments~~  
24 ~~shall apply to products manufactured~~  
25 ~~on or after January 1, 2022.~~

1                   “(D) NEW CONSTRUCTION LEVELS.—

2                   “(i) IN GENERAL.—

3                   “(I) FINAL RULE PUBLISHED  
4                   AFTER JANUARY 1, 2011.—As part of  
5                   any final rule concerning furnace  
6                   standards published after January 1,  
7                   2011, the Secretary shall establish the  
8                   building code levels referred to in sub-  
9                   clauses (I)(aa), (II)(aa), and (III)(aa)  
10                  of section 327(f)(3)(C)(i) subject to  
11                  meeting the criteria of subsection (e)  
12                  when applied specifically to new con-  
13                  struction.

14                  “(II) FINAL RULE PUBLISHED  
15                  AFTER JUNE 1, 2013.—As part of any  
16                  final rule concerning furnace stand-  
17                  ards published after June 1, 2013,  
18                  the Secretary shall determine if the  
19                  building code levels specified in or  
20                  pursuant to section 327(f)(3)(C)  
21                  should be amended subject to meeting  
22                  the criteria of subsection (e) when ap-  
23                  plied specifically to new construction.



1           “(ii) EFFECTIVE DATE.—Any amend-  
2           ed levels shall not take effect before Janu-  
3           ary 1, 2018.

4           “(iii) AMENDED LEVELS.—The final  
5           rule shall contain the amended levels, if  
6           any.”.

7           (f) EXCEPTION FOR CERTAIN BUILDING CODE RE-  
8           QUIREMENTS.—Section 327(f) of the Energy Policy and  
9           Conservation Act (42 U.S.C. 6297(f)) is amended—

10           (1) in paragraph (3), by striking subparagraphs  
11           (B) through (F) and inserting the following:

12           “(B) The code does not contain a manda-  
13           tory requirement that, under all code compli-  
14           ance paths, requires that the covered product  
15           have an energy efficiency exceeding 1 of the fol-  
16           lowing levels:

17           “(i) The applicable energy conserva-  
18           tion standard established in or prescribed  
19           under section 325.

20           “(ii) The level required by a regula-  
21           tion of the State for which the Secretary  
22           has issued a rule granting a waiver under  
23           subsection (d).

24           “(C) If the energy consumption or con-  
25           servation objective in the code is determined

1 using covered products, including any baseline  
2 building designs against which all submitted  
3 building designs are to be evaluated, the objec-  
4 tive is based on the use of covered products  
5 having efficiencies not exceeding—

6 “(i) for residential furnaces, central  
7 air conditioners, and heat pumps, effective  
8 not earlier than January 1, 2013, and  
9 until such time as a level takes effect for  
10 the product under clause (ii)—

11 “(I) for the States described in  
12 section 325(f)(5)(B)(i)—

13 “(aa) for gas furnaces, an  
14 AFUE level determined by the  
15 Secretary; and

16 “(bb) 14 SEER for central  
17 air conditioners (not including  
18 heat pumps);

19 “(II) for the States and other lo-  
20 calities described in section  
21 325(d)(4)(B)(i) (except for the States  
22 of Arizona, California, Nevada, and  
23 New Mexico)—

1                   “(aa) for gas furnaces, an  
2 AFUE level determined by the  
3 Secretary; and

4                   “(bb) 15 SEER for central  
5 air conditioners;

6                   “(III) for the States of Arizona,  
7 California, Nevada, and New Mex-  
8 ico—

9                   “(aa) for gas furnaces, an  
10 AFUE level determined by the  
11 Secretary;

12                   “(bb) 15 SEER for central  
13 air conditioners;

14                   “(cc) an EER of 12.5 for  
15 air conditioners (not including  
16 heat pumps) with cooling capaci-  
17 ty less than 45,000 Btu per  
18 hour; and

19                   “(dd) an EER of 12.0 for  
20 air conditioners (not including  
21 heat pumps) with cooling capaci-  
22 ty of 45,000 Btu per hour or  
23 more; and

24                   “(IV) for all States—

1                   “~~(aa)~~ 85 percent AFUE for  
2                   oil furnaces; and

3                   “~~(bb)~~ 15 SEER and 8.5  
4                   HSPF for heat pumps;

5                   “~~(ii)~~ the building code levels estab-  
6                   lished pursuant to section 325; or

7                   “~~(iii)~~ the applicable standards or lev-  
8                   els specified in subparagraph (B).

9                   “~~(D)~~ The credit to the energy consumption  
10                  or conservation objective allowed by the code for  
11                  installing a covered product having an energy  
12                  efficiency exceeding the applicable standard or  
13                  level specified in subparagraph (C) is on a 1-  
14                  for-1 equivalent energy use or equivalent energy  
15                  cost basis, which may take into account the typ-  
16                  ical lifetimes of the products and building fea-  
17                  tures, using lifetimes for covered products  
18                  based on information published by the Depart-  
19                  ment of Energy or the American Society of  
20                  Heating, Refrigerating and Air-Conditioning  
21                  Engineers.

22                  “~~(E)~~ If the code sets forth 1 or more com-  
23                  binations of items that meet the energy con-  
24                  sumption or conservation objective, and if 1 or  
25                  more combinations specify an efficiency level for

1 a covered product that exceeds the applicable  
2 standards and levels specified in subparagraph  
3 (B)—

4 “(i) there is at least 1 combination  
5 that includes such covered products having  
6 efficiencies not exceeding 1 of the stand-  
7 ards or levels specified in subparagraph  
8 (B); and

9 “(ii) if 1 or more combinations of  
10 items specify an efficiency level for a fur-  
11 nace, central air conditioner, or heat pump  
12 that exceeds the applicable standards and  
13 levels specified in subparagraph (B), there  
14 is at least 1 combination that the State  
15 has found to be reasonably achievable  
16 using commercially available technologies  
17 that includes such products having effi-  
18 ciencies at the applicable levels specified in  
19 subparagraph (C), except that no combina-  
20 tion need include a product having an effi-  
21 ciency less than the level specified in sub-  
22 paragraph (B)(ii).

23 “(F) The energy consumption or conserva-  
24 tion objective is specified in terms of an esti-  
25 mated total consumption of energy (which may

1 be specified in units of energy or its equivalent  
2 cost).”;

3 ~~(2)~~ in paragraph (4)(B)—

4 (A) by inserting after “building code” the  
5 first place it appears the following: “contains a  
6 mandatory requirement that, under all code  
7 compliance paths,”; and

8 (B) by striking “unless the” and all that  
9 follows through “subsection (d)”;

10 ~~(3)~~ by adding at the end the following:

11 “~~(5)~~ REPLACEMENT OF COVERED PRODUCT.—

12 Paragraph ~~(3)~~ shall not apply to the replacement of  
13 a covered product serving an existing building unless  
14 the replacement results in an increase in capacity  
15 greater than—

16 “(A) 12,000 Btu per hour for residential  
17 air conditioners and heat pumps; or

18 “(B) 20 percent for other covered prod-  
19 ucts.”.

20 **SEC. 112. ENERGY CONSERVATION STANDARDS FOR HEAT**  
21 **PUMP POOL HEATERS.**

22 (a) DEFINITIONS.—

23 (1) EFFICIENCY DESCRIPTOR.—Section  
24 321(22) of the Energy Policy and Conservation Act  
25 (42 U.S.C. 6291(22)) is amended—

1 (A) in subparagraph (E), by inserting  
2 “gas-fired” before “pool heaters”; and

3 (B) by adding at the end the following:

4 “(F) For heat pump pool heaters, coeffi-  
5 cient of performance of heat pump pool heat-  
6 ers.”.

7 (2) COEFFICIENT OF PERFORMANCE OF HEAT  
8 PUMP POOL HEATERS.—Section 321 of the Energy  
9 Policy and Conservation Act (42 U.S.C. 6291) is  
10 amended by inserting after paragraph (25) the fol-  
11 lowing:

12 “(25A) COEFFICIENT OF PERFORMANCE OF  
13 HEAT PUMP POOL HEATERS.—The term ‘coefficient  
14 of performance of heat pump pool heaters’ means  
15 the ratio of the capacity to power input value ob-  
16 tained at the following rating conditions: 50.0 °F db/  
17 44.2 °F wb outdoor air and 80.0 °F entering water  
18 temperatures, according to AHRI Standard 1160.”.

19 (3) THERMAL EFFICIENCY OF GAS-FIRED POOL  
20 HEATERS.—Section 321(26) of the Energy Policy  
21 and Conservation Act (42 U.S.C. 6291(26)) is  
22 amended by inserting “gas-fired” before “pool heat-  
23 ers”.

1       (b) **STANDARDS FOR POOL HEATERS.**—Section  
 2 325(e)(2) of the Energy Policy and Conservation Act (42  
 3 U.S.C. 6295(e)(2)) is amended—

4           (1) by striking “(2) The thermal efficiency of  
 5 pool heaters” and inserting the following:

6           “~~(2)~~ **POOL HEATERS.**—

7           “~~(A)~~ **GAS-FIRED POOL HEATERS.**—The  
 8 thermal efficiency of gas-fired pool heaters”;  
 9 and

10          (2) by adding at the end the following:

11          “~~(B)~~ **HEAT PUMP POOL HEATERS.**—Heat  
 12 pump pool heaters manufactured on or after  
 13 the date of enactment of this subparagraph  
 14 shall have a minimum coefficient of perform-  
 15 ance of 4.0.”.

16 **SEC. 113. GU-24 BASE LAMPS.**

17       (a) **DEFINITIONS.**—Section 321 of the Energy Policy  
 18 and Conservation Act (42 U.S.C. 6291) (as amended by  
 19 section 111(a)(2)) is amended by adding at the end the  
 20 following:

21           “~~(69)~~ **GU-24.**—The term ‘GU-24’ means the  
 22 designation of a lamp socket, based on a coding sys-  
 23 tem by the International Electrotechnical Commis-  
 24 sion, under which—



1           “(A) ‘G’ indicates a holder and socket type  
2 with 2 or more projecting contacts, such as pins  
3 or posts;

4           “(B) ‘U’ distinguishes between lamp and  
5 holder designs of similar type that are not  
6 interchangeable due to electrical or mechanical  
7 requirements; and

8           “(C) 24 indicates the distance in millime-  
9 ters between the electrical contact posts.

10       “(70) GU-24 ADAPTOR.—

11           “(A) IN GENERAL.—The term ‘GU-24  
12 Adaptor’ means a 1-piece device, pig-tail, wiring  
13 harness, or other such socket or base attach-  
14 ment that—

15           “(i) connects to a GU-24 socket on  
16 one end and provides a different type of  
17 socket or connection on the other end; and

18           “(ii) does not alter the voltage.

19           “(B) EXCLUSION.—The term ‘GU-24  
20 Adaptor’ does not include a fluorescent ballast  
21 with a GU-24 base.

22       “(71) GU-24 BASE LAMP.—‘GU-24 base lamp’  
23 means a light bulb designed to fit in a GU-24 sock-  
24 et.’.

1 (b) STANDARDS.—Section 325 of the Energy Policy  
2 and Conservation Act (42 U.S.C. 6295) is amended—

3 (1) by redesignating subsection (ii) as sub-  
4 section (jj); and

5 (2) by inserting after subsection (hh) the fol-  
6 lowing:

7 “(ii) GU-24 BASE LAMPS.—

8 “(1) IN GENERAL.—A GU-24 base lamp shall  
9 not be an incandescent lamp as defined by ANSI.

10 “(2) GU-24 ADAPTORS.—GU-24 adaptors shall  
11 not adapt a GU-24 socket to any other line voltage  
12 socket.”.

13 **SEC. 114. EFFICIENCY STANDARDS FOR BOTTLE-TYPE**  
14 **WATER DISPENSERS, COMMERCIAL HOT**  
15 **FOOD HOLDING CABINETS, AND PORTABLE**  
16 **ELECTRIC SPAS.**

17 (a) DEFINITIONS.—Section 321 of the Energy Policy  
18 and Conservation Act (42 U.S.C. 6291) (as amended by  
19 section 113(a)) is amended by adding at the end the fol-  
20 lowing:

21 “(72) BOTTLE-TYPE WATER DISPENSER.—The  
22 term ‘bottle-type water dispenser’ means a drinking  
23 water dispenser that is—

24 “(A) designed for dispensing hot and cold  
25 water; and

1           “(B) uses a removable bottle or container  
2 as the source of potable water.

3           “(73) COMMERCIAL HOT FOOD HOLDING CABI-  
4 NET.—

5           “(A) IN GENERAL.—The term ‘commercial  
6 hot food holding cabinet’ means a heated, fully-  
7 enclosed compartment that—

8           “(i) is designed to maintain the tem-  
9 perature of hot food that has been cooked  
10 in a separate appliance;

11           “(ii) has 1 or more solid or glass  
12 doors; and

13           “(iii) has an interior volume of 8  
14 cubic feet or more.

15           “(B) EXCLUSIONS.—The term ‘commercial  
16 hot food holding cabinet’ does not include—

17           “(i) a heated glass merchandising cab-  
18 inet;

19           “(ii) a drawer warmer;

20           “(iii) a cook-and-hold appliance; or

21           “(iv) a mobile serving cart with both  
22 hot and cold compartments.

23           “(74) COMPARTMENT BOTTLE-TYPE WATER  
24 DISPENSER.—The term ‘compartment bottle-type

1 water dispenser' means a drinking water dispenser  
2 that—

3 “(A) is designed for dispensing hot and  
4 cold water;

5 “(B) uses a removable bottle or container  
6 as the source of potable water; and

7 “(C) includes a refrigerated compartment  
8 with or without provisions for making ice.

9 “(75) PORTABLE ELECTRIC SPA.—

10 “(A) IN GENERAL.—The term ‘portable  
11 electric spa’ means a factory-built electric spa  
12 or hot tub that—

13 “(i) is intended for the immersion of  
14 persons in heated water circulated in a  
15 closed system; and

16 “(ii) is not intended to be drained and  
17 filled with each use.

18 “(B) INCLUSIONS.—The term ‘portable  
19 electric spa’ includes—

20 “(i) a filter;

21 “(ii) a heater (including an electric,  
22 solar, or gas heater);

23 “(iii) a pump;

24 “(iv) a control; and

1                   “(v) other equipment, such as a light,  
2                   a blower, and water sanitizing equipment.

3                   “(C) EXCLUSIONS.—The term ‘portable  
4                   electric spa’ does not include—

5                   “(i) a permanently installed spa that,  
6                   once installed, cannot be moved; or

7                   “(ii) a spa that is specifically designed  
8                   and exclusively marketed for medical treat-  
9                   ment or physical therapy purposes.

10                  “(76) WATER DISPENSER.—The term ‘water  
11                  dispenser’ means a factory-made assembly that—

12                  “(A) mechanically cools and heats potable  
13                  water; and

14                  “(B) dispenses the cooled or heated water  
15                  by integral or remote means.”.

16                  (b) COVERAGE.—

17                  (1) IN GENERAL.—Section 322(a) of the Em-  
18                  ergy Policy and Conservation Act (42 U.S.C.  
19                  6292(a)) is amended—

20                  (A) by redesignating paragraph (20) as  
21                  paragraph (23); and

22                  (B) by inserting after paragraph (19) the  
23                  following:

24                  “(20) Bottle-type water dispensers and com-  
25                  partment bottle-type water dispensers.

1           ~~“(21) Commercial hot food holding cabinets.~~

2           ~~“(22) Portable electric spas.”.~~

3           ~~(2) CONFORMING AMENDMENTS.—~~

4                   (A) Section 324 of the Energy Policy and  
5           Conservation Act (42 U.S.C. 6294) is amended  
6           by striking ~~“(19)”~~ each place it appears in sub-  
7           sections ~~(a)(3)~~, ~~(b)(1)(B)~~, ~~(b)(3)~~, and ~~(b)(5)~~  
8           and inserting ~~“(23)”~~.

9                   (B) Section 325(1) of the Energy Policy  
10          and Conservation Act (42 U.S.C. 6295(1)) is  
11          amended by striking ~~“paragraph (19)”~~ each  
12          place it appears in paragraphs ~~(1)~~ and ~~(2)~~ and  
13          inserting ~~“paragraph (23)”~~.

14          ~~(e) TEST PROCEDURES.—~~Section 323(b) of the En-  
15          ergy Policy and Conservation Act (42 U.S.C. 6293(b)) (as  
16          amended by section 111(b)) is amended by adding at the  
17          end the following:

18                   ~~“(20) BOTTLE-TYPE WATER DISPENSERS.—~~

19                           ~~“(A) IN GENERAL.—~~Test procedures for  
20           bottle-type water dispensers and compartment  
21           bottle-type water dispensers shall be based on  
22           the document ‘Energy Star Program Require-  
23           ments for Bottled Water Coolers version 1.1’  
24           published by the Environmental Protection  
25           Agency.

1           “(B) INTEGRAL, AUTOMATIC TIMERS.—A  
2 unit with an integral, automatic timer shall not  
3 be tested under this paragraph using section  
4 4D of the test criteria (relating to Timer  
5 Usage).

6           “(21) COMMERCIAL HOT FOOD HOLDING CABI-  
7 NETS.—

8           “(A) IN GENERAL.—Test procedures for  
9 commercial hot food holding cabinets shall be  
10 based on the test procedures described in  
11 ANSI/ASTM F2140-01 (Test for idle energy  
12 rate-dry test).

13           “(B) INTERIOR VOLUME.—Interior volume  
14 shall be based under this paragraph on the  
15 method demonstrated in the document ‘Energy  
16 Star Program Requirements for Commercial  
17 Hot Food Holding Cabinets’ of the Environ-  
18 mental Protection Agency, as in effect on Au-  
19 gust 15, 2003.

20           “(22) PORTABLE ELECTRIC SPAS.—

21           “(A) IN GENERAL.—Test procedures for  
22 portable electric spas shall be based on the test  
23 method for portable electric spas described in  
24 section 1604 of title 20, California Code of  
25 Regulations, as amended on December 3, 2008.

1           “(B) NORMALIZED CONSUMPTION.—Con-  
2           sumption shall be normalized under this para-  
3           graph for a water temperature difference of 37  
4           degrees Fahrenheit.

5           “(C) ANSI TEST PROCEDURE.—If the  
6           American National Standards Institute pub-  
7           lishes a test procedure for portable electric  
8           spas, the Secretary shall revise the procedure  
9           established under this paragraph, as determined  
10          appropriate by the Secretary.”

11          (d) STANDARDS.—Section 325 of the Energy Policy  
12          and Conservation Act (42 U.S.C. 6295) (as amended by  
13          section 113(b)) is amended—

14               (1) by redesignating subsection (ii) as sub-  
15               section (mm); and

16               (2) by inserting after subsection (hh) the fol-  
17               lowing:

18           “(ii) BOTTLE-TYPE WATER DISPENSERS.—Effective  
19           beginning on the date that is 1 year after the date of en-  
20           actment of the Energy Savings and Industrial Competi-  
21           tiveness Act of 2011—

22               “(1) a bottle-type water dispenser shall not  
23               have standby energy consumption that is greater  
24               than 1.2 kilowatt-hours per day; and



1           “(2) a compartment bottle-type water dispenser  
2           shall not have standby energy consumption that is  
3           greater than 1.3 kilowatt-hours per day.

4           “(jj) COMMERCIAL HOT FOOD HOLDING CABI-  
5 NETS.—Effective beginning on the date that is 1 year  
6 after the date of enactment of the Energy Savings and  
7 Industrial Competitiveness Act of 2011, a commercial hot  
8 food holding cabinet shall have a maximum idle energy  
9 rate of 40 watts per cubic foot of interior volume.

10          “(kk) PORTABLE ELECTRIC SPAS.—Effective begin-  
11 ning on the date that is 1 year after the date of enactment  
12 of the Energy Savings and Industrial Competitiveness Act  
13 of 2011, a portable electric spa shall not have a normalized  
14 standby power rate of greater than 5 ( $V^{2/3}$ ) Watts (in  
15 which ‘V’ equals the fill volume (in gallons)).

16          “(ll) REVISIONS.—

17           “(1) IN GENERAL.—Not later than the date  
18 that is 3 years after the date of enactment of the  
19 Energy Savings and Industrial Competitiveness Act  
20 of 2011, the Secretary shall—

21           “(A) consider in accordance with sub-  
22 section (o) revisions to the standards estab-  
23 lished under subsections (ii), (jj), and (kk); and

24           “(B)(i) publish a final rule establishing the  
25 revised standards; or

1           “(ii) make a finding that no revisions are  
2           technically feasible and economically justified.

3           ~~“(2) EFFECTIVE DATE.—Any revised standards~~  
4           under this subsection shall take effect not earlier  
5           than the date that is 3 years after the date of the  
6           publication of the final rule.”.

7           (e) PREEMPTION.—Section 327 of the Energy Policy  
8           and Conservation Act (42 U.S.C. 6297) is amended—

9           (1) in subsection (b)—

10           (A) in paragraph (6), by striking “or”  
11           after the semicolon at the end;

12           (B) in paragraph (7), by striking the pe-  
13           riod at the end and inserting “; or”; and

14           (C) by adding at the end the following:

15           ~~“(8) is a regulation that—~~

16           ~~“(A) establishes efficiency standards for~~  
17           bottle-type water dispensers; compartment bot-  
18           tle-type water dispensers; commercial hot food  
19           holding cabinets; or portable electric spas; and

20           ~~“(B) is in effect on or before the date of~~  
21           enactment of this paragraph.”; and

22           (2) in subsection (c)—

23           (A) in paragraph (8)(B), by striking “and”  
24           after the semicolon at the end;

25           (B) in paragraph (9)—

- 1 (i) by striking “except that—” and all  
 2 that follows through “if the Secretary” and  
 3 inserting “except that if the Secretary”;  
 4 (ii) by redesignating clauses (i) and  
 5 (ii) as subparagraphs (A) and (B), respec-  
 6 tively, and indenting appropriately; and  
 7 (iii) in subparagraph (B) (as so redesi-  
 8 gnated), by striking the period at the end  
 9 and inserting “; or”; and  
 10 (C) by adding at the end the following:

11 “(10) is a regulation that—  
 12 “(A) establishes efficiency standards for  
 13 bottle-type water dispensers, compartment bot-  
 14 tle-type water dispensers, commercial hot food  
 15 holding cabinets, or portable electric spas; and  
 16 “(B) is adopted by the California Energy  
 17 Commission on or before January 1, 2013.”.

18 **SEC. 115. TEST PROCEDURE PETITION PROCESS.**

- 19 (a) CONSUMER PRODUCTS OTHER THAN AUTO-  
 20 MOBILES.—Section 323(b)(1) of the Energy Policy and  
 21 Conservation Act (42 U.S.C. 6293(b)(1)) is amended—  
 22 (1) in subparagraph (A)(i), by striking  
 23 “amend” and inserting “publish in the Federal Reg-  
 24 ister amended”; and  
 25 (2) by adding at the end the following:

1 “(B) PETITIONS.—

2 “(i) IN GENERAL.—In the case of any  
3 covered product, any person may petition  
4 the Secretary to conduct a rulemaking—

5 “(I) to prescribe a test procedure  
6 for the covered product; or

7 “(II) to amend the test proce-  
8 dures applicable to the covered prod-  
9 uct to more accurately or fully comply  
10 with paragraph (3).

11 “(ii) DETERMINATION.—The Sec-  
12 retary shall—

13 “(I) not later than 90 days after  
14 the date of receipt of the petition;  
15 publish the petition in the Federal  
16 Register; and

17 “(II) not later than 180 days  
18 after the date of receipt of the peti-  
19 tion; grant or deny the petition.

20 “(iii) BASIS.—The Secretary shall  
21 grant a petition if the Secretary finds that  
22 the petition contains evidence that, assum-  
23 ing no other evidence was considered, pro-  
24 vides an adequate basis for determining  
25 that an amended test procedure would

1 more accurately or fully comply with para-  
2 graph (3).

3 “(iv) EFFECT ON OTHER REQUIRE-  
4 MENTS.—The granting of a petition by the  
5 Secretary under this subparagraph shall  
6 create no presumption with respect to the  
7 determination of the Secretary that the  
8 proposed test procedure meets the require-  
9 ments of paragraph (3).

10 “(v) RULEMAKING.—

11 “(I) IN GENERAL.—Except as  
12 provided in subclause (II), not later  
13 than the end of the 18-month period  
14 beginning on the date of granting a  
15 petition, the Secretary shall publish  
16 an amended test procedure or a deter-  
17 mination not to amend the test proce-  
18 dure.

19 “(II) EXTENSION.—The Sec-  
20 retary may extend the period de-  
21 scribed in subclause (I) for 1 addi-  
22 tional year.

23 “(III) DIRECT FINAL RULE.—  
24 The Secretary may adopt a consensus  
25 test procedure in accordance with the

1 direct final rule procedure established  
2 under section 325(p)(4).

3 “(C) TEST PROCEDURES.—The Secretary  
4 may, in accordance with the requirements of  
5 this subsection, prescribe test procedures for  
6 any consumer product classified as a covered  
7 product under section 322(b).

8 “(D) NEW OR AMENDED TEST PROCE-  
9 DURES.—The Secretary shall direct the Na-  
10 tional Institute of Standards and Technology to  
11 assist in developing new or amended test proce-  
12 dures.”.

13 (b) CERTAIN INDUSTRIAL EQUIPMENT.—Section 343  
14 of the Energy Policy and Conservation Act (42 U.S.C.  
15 6314) is amended—

16 (1) in subsection (a), by striking paragraph (1)  
17 and inserting the following:

18 “(1) AMENDMENT AND PETITION PROCESS.—

19 “(A) IN GENERAL.—At least once every 7  
20 years, the Secretary shall review test procedures  
21 for all covered equipment and—

22 “(i) publish in the Federal Register  
23 amended test procedures with respect to  
24 any covered equipment, if the Secretary  
25 determines that amended test procedures

1 would more accurately or fully comply with  
2 paragraphs (2) and (3); or

3 “(ii) publish notice in the Federal  
4 Register of any determination not to  
5 amend a test procedure.

6 “(B) PETITIONS.—

7 “(i) IN GENERAL.—In the case of any  
8 class or category of covered equipment,  
9 any person may petition the Secretary to  
10 conduct a rulemaking—

11 “(I) to prescribe a test procedure  
12 for the covered equipment; or

13 “(II) to amend the test proce-  
14 dures applicable to the covered equip-  
15 ment to more accurately or fully com-  
16 ply with paragraphs (2) and (3).

17 “(ii) DETERMINATION.—The See-  
18 retary shall—

19 “(I) not later than 90 days after  
20 the date of receipt of the petition;  
21 publish the petition in the Federal  
22 Register; and

23 “(II) not later than 180 days  
24 after the date of receipt of the peti-  
25 tion; grant or deny the petition.

1           “(iii) BASIS.—The Secretary shall  
2 grant a petition if the Secretary finds that  
3 the petition contains evidence that, assum-  
4 ing no other evidence was considered, pro-  
5 vides an adequate basis for determining  
6 that an amended test method would more  
7 accurately promote energy or water use ef-  
8 ficiency.

9           “(iv) EFFECT ON OTHER REQUIRE-  
10 MENTS.—The granting of a petition by the  
11 Secretary under this paragraph shall cre-  
12 ate no presumption with respect to the de-  
13 termination of the Secretary that the pro-  
14 posed test procedure meets the require-  
15 ments of paragraphs (2) and (3).

16           “(v) RULEMAKING.—

17           “(I) IN GENERAL.—Except as  
18 provided in subclause (II), not later  
19 than the end of the 18-month period  
20 beginning on the date of granting a  
21 petition, the Secretary shall publish  
22 an amended test method or a deter-  
23 mination not to amend the test meth-  
24 od.



1                   “(II) EXTENSION.—The Sec-  
 2                   retary may extend the period de-  
 3                   scribed in subclause (I) for 1 addi-  
 4                   tional year.

5                   “(III) DIRECT FINAL RULE.—  
 6                   The Secretary may adopt a consensus  
 7                   test procedure in accordance with the  
 8                   direct final rule procedure established  
 9                   under section 325(p).”;

10                   (2) by striking subsection (e); and

11                   (3) by redesignating subsections (d) and (e) as  
 12                   subsections (e) and (d), respectively.

13 **SEC. 116. AMENDMENTS TO HOME APPLIANCE TEST METH-**  
 14 **ODS.**

15                   Section 323(b) of the Energy Policy and Conserva-  
 16                   tion Act (42 U.S.C. 6293(b)) (as amended by section  
 17                   114(e)) is amended by adding at the end the following:

18                   “(23) REFRIGERATOR AND FREEZER TEST PRO-  
 19                   CEDURE.—

20                   “(A) IN GENERAL.—Not later than 90  
 21                   days after the date on which the Secretary pub-  
 22                   lishes the final standard rule that was proposed  
 23                   on September 27, 2010, the Secretary shall fi-  
 24                   nalize the interim final test procedure rule pro-  
 25                   posed on December 16, 2010, with such subse-

1           quent modifications to the test procedure or  
 2           standards as the Secretary determines to be ap-  
 3           propriate and consistent with this part.

4           “(B) RULEMAKING.—

5           “(i) INITIATION.—Not later than Jan-  
 6           uary 1, 2012, the Secretary shall initiate a  
 7           rulemaking to amend the test procedure  
 8           described in subparagraph (A) only to in-  
 9           corporate measured automatic icemaker  
 10          energy use.

11          “(ii) FINAL RULE.—Not later than  
 12          December 31, 2012, the Secretary shall  
 13          publish a final rule regarding the matter  
 14          described in clause (i).

15          “(24) ADDITIONAL HOME APPLIANCE TEST  
 16          PROCEDURES.—

17          “(A) AMENDED TEST PROCEDURE FOR  
 18          CLOTHES WASHERS.—Not later than October 1,  
 19          2011, the Secretary shall publish a final rule  
 20          amending the residential clothes washer test  
 21          procedure.

22          “(B) AMENDED TEST PROCEDURE FOR  
 23          CLOTHES DRYERS.—

24          “(i) IN GENERAL.—Not later than  
 25          180 days after the date of enactment of

1           this paragraph, the Secretary shall publish  
2           an amended test procedure for clothes dry-  
3           ers.

4           “(ii) REQUIREMENT.—The amend-  
5           ments to the test procedure shall be lim-  
6           ited to modifications requiring that tested  
7           dryers are run until the cycle (including  
8           cool down) is ended by automatic termi-  
9           nation controls, if equipped with those con-  
10          trols.”.

11 **SEC. 117. CREDIT FOR ENERGY STAR SMART APPLIANCES.**

12          Section 324A of the Energy Policy and Conservation  
13 Act (42 U.S.C. 6294a) is amended by adding at the end  
14 the following:

15          “(e) CREDIT FOR SMART APPLIANCES.—Not later  
16 than 180 days after the date of enactment of this sub-  
17 section, after soliciting comments pursuant to subsection  
18 (e)(5), the Administrator of the Environmental Protection  
19 Agency, in cooperation with the Secretary, shall determine  
20 whether to update the Energy Star criteria for residential  
21 refrigerators, refrigerator-freezers, freezers, dishwashers,  
22 clothes washers, clothes dryers, and room air conditioners  
23 to incorporate smart grid and demand response features.”.

1 **SEC. 118. VIDEO GAME CONSOLE ENERGY EFFICIENCY**  
 2 **STUDY.**

3 (a) **IN GENERAL.**—Part B of title III of the Energy  
 4 Policy and Conservation Act is amended by inserting after  
 5 section 324A (42 U.S.C. 6294a) the following:

6 **“SEC. 324B. VIDEO GAME CONSOLE ENERGY EFFICIENCY**  
 7 **STUDY.**

8 “(a) **INITIAL STUDY.**—

9 “(1) **IN GENERAL.**—Not later than 1 year after  
 10 the date of enactment of this section, the Secretary  
 11 shall conduct a study of—

12 “(A) video game console energy use; and

13 “(B) opportunities for energy savings re-  
 14 garding that energy use.

15 “(2) **INCLUSIONS.**—The study under paragraph  
 16 (1) shall include an assessment of all power-con-  
 17 suming modes and media playback modes of video  
 18 game consoles.

19 “(b) **ACTION ON COMPLETION.**—On completion of  
 20 the initial study under subsection (a), the Secretary shall  
 21 determine, by regulation, using the criteria and procedures  
 22 described in section 325(n)(2), whether to initiate a proe-  
 23 cess for establishing minimum energy efficiency standards  
 24 for video game console energy use.

25 “(c) **FOLLOW-UP STUDY.**—If the Secretary deter-  
 26 mines under subsection (b) that standards should not be

1 established, the Secretary shall conduct a follow-up study  
 2 in accordance with subsection (a) by not later than 3 years  
 3 after the date of the determination.”.

4 (b) APPLICATION DATE.—Subsection (nn)(1) of sec-  
 5 tion 325 of the Energy Policy and Conservation Act (42  
 6 U.S.C. 6295) (as redesignated by section 114(d)(1)) is  
 7 amended by inserting “or section 324B” after “subsection  
 8 (l), (u), or (v)” each place it appears.

9 **SEC. 119. REFRIGERATOR AND FREEZER STANDARDS.**

10 Section 325(b) of the Energy Policy and Conserva-  
 11 tion Act (42 U.S.C. 6295(b)) is amended by striking para-  
 12 graph (4) and inserting the following:

13 “(4) REFRIGERATORS, REFRIGERATOR-FREEZ-  
 14 ERS, AND FREEZERS MANUFACTURED AS OF JANU-  
 15 ARY 1, 2014.—

16 “(A) DEFINITION OF BUILT-IN PRODUCT  
 17 CLASS.—In this paragraph, the term ‘built-in  
 18 product class’ means a refrigerator, freezer, or  
 19 refrigerator with a freezer unit that—

20 “(i) is 7.75 cubic feet or greater in  
 21 total volume and 24 inches or less in cabi-  
 22 net depth (not including doors, handles,  
 23 and custom front panels);

1           “(ii) is designed to be totally encased  
2 by cabinetry or panels attached during in-  
3 stallation;

4           “(iii) is designed to accept a custom  
5 front panel or to be equipped with an inte-  
6 gral factory-finished face;

7           “(iv) is designed to be securely fas-  
8 tened to adjacent cabinetry, walls, or  
9 floors; and

10          “(v) has 2 or more sides that are  
11 not—

12                   “(I) fully finished; and

13                   “(II) intended to be visible after  
14 installation.

15          “(B) MAXIMUM ENERGY USE.—

16           “(i) IN GENERAL.—Based on the test  
17 procedure in effect on July 9, 2010, the  
18 maximum energy use allowed in kilowatt  
19 hours per year for each product described  
20 in the table contained in clause (ii) (other  
21 than refrigerators and refrigerator-freezers  
22 with total refrigerated volume exceeding 39  
23 cubic feet and freezers with total refrig-  
24 erated volume exceeding 30 cubic feet) that  
25 is manufactured on or after January 1,

1                   2014, is specified in the table contained in  
2                   that clause.

3                   “(ii) STANDARDS EQUATIONS.—The  
4                   allowed maximum energy use referred to in  
5                   clause (i) is as follows:

<b>“Standards Equations</b>	
<b>Product Description</b>	
<b>Automatic Defrost Refrigerator-Freezers</b>	
Top Freezer w/o TTD ice	7.35 AV+ 207.0
Top Freezer w/ TTD ice	7.65 AV+ 267.0
Side Freezer w/o TTD ice	3.68 AV+ 380.6
Side Freezer w/ TTD ice	7.58 AV+ 304.5
Bottom Freezer w/o TTD ice	3.68 AV+ 367.2
Bottom Freezer w/ TTD ice	4.0 AV+ 431.2
<b>Manual &amp; Partial Automatic Refrigerator-Freezers</b>	
Manual Defrost	7.06 AV+ 198.7
Partial Automatic	7.06 AV+ 198.7
<b>All Refrigerators</b>	
Manual Defrost	7.06 AV+ 198.7
Automatic Defrost	7.35 AV+ 207.0
<b>All Freezers</b>	
Upright with manual defrost	5.66 AV+ 193.7
Upright with automatic defrost	8.70 AV+ 228.3
Chest with manual defrost	7.41 AV+ 107.8
Chest with automatic defrost	10.33 AV+ 148.1
<b>Automatic Defrost Refrigerator-Freezers—Compact Size</b>	
Top Freezer and Bottom Freezer	10.80 AV+ 301.8

Side Freezer	6.08 AV+ 400.8
<b>Manual &amp; Partial Automatic Refrigerator-Freezers—Compact Size</b>	
Manual Defrost	8.03 AV+ 224.3
Partial Automatic	5.25 AV+ 298.5
<b>All Refrigerators—Compact Size</b>	
Manual defrost	8.03 AV+ 224.3
Automatic defrost	9.53 AV+ 266.3
<b>All Freezers—Compact Size</b>	
Upright with manual defrost	8.80 AV+ 225.7
Upright with automatic defrost	10.26 AV+ 351.9
Chest	9.41 AV+ 136.8
<b>Automatic Defrost Refrigerator-Freezers—Built-ins</b>	
Top Freezer w/o TTD ice	7.84 AV+ 220.8
Side Freezer w/o TTD ice	3.93 AV+ 406.0
Side Freezer w/ TTD ice	8.08 AV+ 324.8
Bottom Freezer w/o TTD ice	3.91 AV+ 390.2
Bottom Freezer w/ TTD ice	4.25 AV+ 458.2
<b>All Refrigerators—Built-ins</b>	
Automatic Defrost	7.84 AV+ 220.8
<b>All Freezers—Built-ins</b>	
Upright with automatic defrost	9.32 AV+ 244.6.

- 1                                   “(iii) FINAL RULES.—
- 2   “(I) IN GENERAL.—Except as
- 3   provided in subclause (II), after the
- 4   date of publication of each test proce-
- 5   dure change made pursuant to section
- 6   323(b)(23), in accordance with the



1 procedures described in section  
2 323(e)(2), the Secretary shall publish  
3 final rules to amend the standards  
4 specified in the table contained in  
5 clause (ii).

6 “(II) EXCEPTION.—The stand-  
7 ards amendment made pursuant to  
8 the test procedure change required  
9 under section 323(b)(23)(B) shall be  
10 based on the difference between—

11 “(aa) the average measured  
12 automatic ice maker energy use  
13 of a representative sample for  
14 each product class; and

15 “(bb) the value assumed by  
16 the Department of Energy for ice  
17 maker energy use in the test pro-  
18 cedure published pursuant to sec-  
19 tion 323(b)(23)(A).

20 “(III) APPLICABILITY.—Section  
21 323(e)(3) shall not apply to the rules  
22 described in this clause.

23 “(iv) FINAL RULE.—The Secretary  
24 shall publish any final rule required by

1 clause (iii) by not later than the later of  
2 the date that is 180 days after—

3 “(I) the date of enactment of this  
4 clause; or

5 “(II) the date of publication of a  
6 final rule to amend the test procedure  
7 described in section 323(b)(23).

8 “(v) NEW PRODUCT CLASSES.—The  
9 Secretary may establish 1 or more new  
10 product classes as part of the final amend-  
11 ed standard adopted pursuant to the test  
12 procedure change required under section  
13 323(b)(23)(B) if the 1 or more new prod-  
14 uct classes are needed to distinguish  
15 among products with automatic icemakers.

16 “(vi) EFFECTIVE DATES OF STAND-  
17 ARDS.—

18 “(I) STANDARDS AMENDMENT  
19 FOR FIRST REVISED TEST PROCE-  
20 DURE.—A standards amendment  
21 adopted pursuant to a test procedure  
22 change required under section  
23 323(b)(23)(A) shall apply to any  
24 product manufactured as of January  
25 1, 2014.

1                   “(H) STANDARDS AMENDMENT  
 2                   AFTER REVISED TEST PROCEDURE  
 3                   FOR ICEMAKER ENERGY.—An amend-  
 4                   ment adopted pursuant to a test pro-  
 5                   cedure change required under section  
 6                   ~~323(b)(23)(B)~~ shall apply to any  
 7                   product manufactured as of the date  
 8                   that is ~~3~~ years after the date of publi-  
 9                   cation of the final rule amending the  
 10                  standards.

11                  “(vii) SLOPE AND INTERCEPT AD-  
 12                  JUSTMENTS.—

13                   “(I) IN GENERAL.—With respect  
 14                   to refrigerators, freezers, and refrig-  
 15                   erator-freezers, the Secretary may, by  
 16                   rule, adjust the slope and intercept of  
 17                   the equations specified in the table  
 18                   contained in clause (ii)—

19                           “(aa) based on the energy  
 20                           use of typical products of various  
 21                           sizes in a product class; and

22                           “(bb) if the average energy  
 23                           use for each of the classes is the  
 24                           same under the new equations as

1 under the equations specified in  
2 the table contained in clause (ii).

3 “(H) DEADLINE.—If the Sec-  
4 retary adjusts the slope and intercept  
5 of an equation described in subclause  
6 (I), the Secretary shall publish the  
7 final rule containing the adjustment  
8 by not later than July 1, 2011.

9 “(viii) EFFECT.—A final rule pub-  
10 lished under clause (iii) pursuant to the  
11 test procedure change required under sec-  
12 tion 323(b)(23)(B) or pursuant to clause  
13 (iv) shall not be considered to be an  
14 amendment to the standard for purposes  
15 of section 325(m).”.

16 **SEC. 120. ROOM AIR CONDITIONER STANDARDS.**

17 Section 325(e) of the Energy Policy and Conservation  
18 Act (~~42 U.S.C. 6295(e)~~) is amended by adding at the end  
19 the following:

20 “(3) MINIMUM ENERGY EFFICIENCY RATIO OF  
21 ROOM AIR CONDITIONERS MANUFACTURED ON OR  
22 AFTER JUNE 1, 2014.—

23 “(A) IN GENERAL.—Based on the test pro-  
24 cedure in effect on July 9, 2010, the minimum  
25 energy efficiency ratios of room air conditioners

1 manufactured on or after June 1, 2014, shall  
 2 not be less than that specified in the table con-  
 3 tained in subparagraph (B).

4 “(B) MINIMUM ENERGY EFFICIENCY RA-  
 5 TIOS.—The minimum energy efficiency ratios  
 6 referred to in subparagraph (A) are as follows:

Product Description	Minimum EER
<b>Without Reverse Cycle w/Louvers</b>	
<6,000 Btu/h	11.2
6,000 to 7,999 Btu/h	11.2
8,000-13,999 Btu/h	11.0
14,000 to 19,999 Btu/h	10.8
20,000-27,999 Btu/h	9.4
≥28,000 Btu/h	9.0
<b>Without Reverse Cycle w/o Louvers</b>	
<6,000 Btu/h	10.2
6,000 to 7,999 Btu/h	10.2
8,000-10,999 Btu/h	9.7
11,000-13,999 Btu/h	9.6
14,000 to 19,999 Btu/h	9.4
≥20,000 Btu/h	9.4
<b>With Reverse Cycle</b>	
<20,000 w/Louvers Btu/h	9.9
≥ 20,000 w/Louvers Btu/h	9.4
<14,000 w/o Louvers Btu/h	9.4
≥14,000 w/o Louvers Btu/h	8.8
<b>Casement</b>	

“Product Description	Minimum EER
Casement Only	9.6
Casement-Slider	10.5.

1                   “(C) FINAL RULE.—

2                   “(i) IN GENERAL.—Not later than  
3                   July 1, 2011, pursuant to the test proce-  
4                   dure adopted by the Secretary on January  
5                   6, 2011, the Secretary shall amend the  
6                   standards specified in the table contained  
7                   in subparagraph (B) in accordance with  
8                   the procedures described in section  
9                   323(c)(2).

10                   “(ii) STANDBY AND OFF MODE EN-  
11                   ERGY CONSUMPTION.—

12                   “(I) IN GENERAL.—The Sec-  
13                   retary shall integrate standby and off  
14                   mode energy consumption into the  
15                   amended energy efficiency ratios  
16                   standards required under clause (i).

17                   “(II) REQUIREMENTS.—The  
18                   amended standards described in sub-  
19                   clause (I) shall reflect the levels of  
20                   standby and off mode energy con-  
21                   sumption that meet the criteria de-  
22                   scribed in section 325(o).

1 “(iii) APPLICABILITY.—

2 “(I) AMENDMENT OF STAND-  
3 ARD.—Section 323(e)(3) shall not  
4 apply to the amended standards de-  
5 scribed in clause (i).

6 “(II) AMENDED STANDARDS.—  
7 The amended standards required by  
8 this subparagraph shall apply to prod-  
9 ucts manufactured on or after June 1,  
10 2014.”.

11 **SEC. 121. UNIFORM EFFICIENCY DESCRIPTOR FOR COV-  
12 ERED WATER HEATERS.**

13 Section 325(e) of the Energy Policy and Conservation  
14 Act (42 U.S.C. 6295(e)) is amended by adding at the end  
15 the following:

16 “(5) UNIFORM EFFICIENCY DESCRIPTOR FOR  
17 COVERED WATER HEATERS.—

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

19 “(i) COVERED WATER HEATER.—The  
20 term ‘covered water heater’ means—

21 “(I) a water heater; and

22 “(II) a storage water heater, in-  
23 stantaneous water heater, and unfired  
24 water storage tank (as defined in sec-  
25 tion 340).

1           “(ii) FINAL RULE.—The term ‘final  
2           rule’ means the final rule published under  
3           this paragraph.

4           “(B) PUBLICATION OF FINAL RULE.—Not  
5           later than 180 days after the date of enactment  
6           of this paragraph, the Secretary shall publish a  
7           final rule that establishes a uniform efficiency  
8           descriptor and accompanying test methods for  
9           covered water heaters.

10          “(C) PURPOSE.—The purpose of the final  
11          rule shall be to replace with a uniform effi-  
12          ciency descriptor—

13                 “(i) the energy factor descriptor for  
14                 water heaters established under this sub-  
15                 section; and

16                 “(ii) the thermal efficiency and stand-  
17                 by loss descriptors for storage water heat-  
18                 ers, instantaneous water heaters, and  
19                 unfired water storage tanks established  
20                 under section 342(a)(5).

21          “(D) EFFECT OF FINAL RULE.—

22                 “(i) IN GENERAL.—Notwithstanding  
23                 any other provision of this title, effective  
24                 beginning on the effective date of the final  
25                 rule, the efficiency standard for covered



1 water heaters shall be denominated accord-  
2 ing to the efficiency descriptor established  
3 by the final rule.

4 “(ii) EFFECTIVE DATE.—The final  
5 rule shall take effect 1 year after the date  
6 of publication of the final rule under sub-  
7 paragraph (B).

8 “(E) CONVERSION FACTOR.—

9 “(i) IN GENERAL.—The Secretary  
10 shall develop a mathematical conversion  
11 factor for converting the measurement of  
12 efficiency for covered water heaters from  
13 the test procedures in effect on the date of  
14 enactment of this paragraph to the new  
15 energy descriptor established under the  
16 final rule.

17 “(ii) APPLICATION.—The conversion  
18 factor shall apply to models of covered  
19 water heaters affected by the final rule and  
20 tested prior to the effective date of the  
21 final rule.

22 “(iii) EFFECT ON EFFICIENCY RE-  
23 QUIREMENTS.—The conversion factor shall  
24 not affect the minimum efficiency require-

1           ments for covered water heaters otherwise  
2           established under this title.

3           “(iv) USE.—During the period de-  
4           scribed in clause (v), a manufacturer may  
5           apply the conversion factor established by  
6           the Secretary to rerate existing models of  
7           covered water heaters that are in existence  
8           prior to the effective date of the rule de-  
9           scribed in clause (v)(II) to comply with the  
10          new efficiency descriptor.

11          “(v) PERIOD.—Subclause (E) shall  
12          apply during the period—

13                  “(I) beginning on the date of  
14                  publication of the conversion factor in  
15                  the Federal Register; and

16                  “(II) ending on April 16, 2015.

17          “(F) EXCLUSIONS.—The final rule may  
18          exclude a specific category of covered water  
19          heaters from the uniform efficiency descriptor  
20          established under this paragraph if the Sec-  
21          retary determines that the category of water  
22          heaters—

23                  “(i) does not have a residential use  
24                  and can be clearly described in the final  
25                  rule; and

1           “(ii) are effectively rated using the  
2           thermal efficiency and standby loss  
3           descriptors applied (on the date of enact-  
4           ment of this paragraph) to the category  
5           under section 342(a)(5).

6           “(G) OPTIONS.—The descriptor set by the  
7           final rule may be—

8                   “(i) a revised version of the energy  
9                   factor descriptor in use on the date of en-  
10                  actment of this paragraph;

11                  “(ii) the thermal efficiency and stand-  
12                  by loss descriptors in use on that date;

13                  “(iii) a revised version of the thermal  
14                  efficiency and standby loss descriptors;

15                  “(iv) a hybrid of descriptors; or

16                  “(v) a new approach.

17           “(H) APPLICATION.—The efficiency  
18           descriptor and accompanying test method estab-  
19           lished under the final rule shall apply, to the  
20           maximum extent practicable, to all water heat-  
21           ing technologies in use on the date of enact-  
22           ment of this paragraph and to future water  
23           heating technologies.

24           “(I) PARTICIPATION.—The Secretary shall  
25           invite interested stakeholders to participate in

1 the rulemaking process used to establish the  
2 final rule.

3 “(J) TESTING OF ALTERNATIVE  
4 DESCRIPTORS.—In establishing the final rule,  
5 the Secretary shall contract with the National  
6 Institute of Standards and Technology, as nec-  
7 essary, to conduct testing and simulation of al-  
8 ternative descriptors identified for consider-  
9 ation.

10 “(K) EXISTING COVERED WATER HEAT-  
11 ERS.—A covered water heater shall be consid-  
12 ered to comply with the final rule on and after  
13 the effective date of the final rule and with any  
14 revised labeling requirements established by the  
15 Federal Trade Commission to carry out the  
16 final rule if the covered water heater—

17 “(i) was manufactured prior to the ef-  
18 fective date of the final rule; and

19 “(ii) complied with the efficiency  
20 standards and labeling requirements in ef-  
21 fect prior to the final rule.”.

22 **SEC. 122. CLOTHES DRYERS.**

23 Section 325(g)(4) of the Energy Policy and Con-  
24 servation Act (42 U.S.C. 6295(g)(4)) is amended by add-  
25 ing at the end the following:

1                   “(D) MINIMUM ENERGY FACTORS FOR  
2 CLOTHES DRYERS.—

3                   “(i) IN GENERAL.—Based on the test  
4 procedure in effect as of July 9, 2010,  
5 clothes dryers manufactured on or after  
6 January 1, 2015, shall comply with the  
7 minimum energy factors specified in the  
8 table contained in clause (ii).

9                   “(ii) NEW STANDARDS.—The min-  
10 imum energy factors referred to in clause  
11 (i) are as follows:

Product Description	EF
Vented Electric Standard	3.17.
Vented Electric Compact 120V	3.29.
Vented Electric Compact 240V	3.05.
Vented Gas	2.81.
Vent-Less Electric Compact 240V	2.37.
Vent-Less Electric Combination Washer/Dryer	1.95.

12                   “(iii) FINAL RULE.—

13                   “(I) REQUIREMENTS.—

14                   “(aa) IN GENERAL.—The  
15 final rule to amend the clothes  
16 dryer test procedure adopted pur-  
17 suant to section 323(b)(24)(B)  
18 shall amend the energy factors

1 standards specified in the table  
2 contained in clause (ii) in accord-  
3 ance with the procedures de-  
4 scribed in section 323(e)(2).

5 “(bb) REPRESENTATIVE  
6 SAMPLE.—To establish a rep-  
7 resentative sample of compliant  
8 products, the Secretary shall se-  
9 lect a sample of minimally com-  
10 pliant dryers that automatically  
11 terminate the drying cycle at not  
12 less than 4 percent remaining  
13 moisture content.

14 “(II) STANDBY AND OFF MODE  
15 ENERGY CONSUMPTION.—

16 “(aa) INTEGRATION.—The  
17 Secretary shall integrate standby  
18 and off mode energy consumption  
19 into the amended standards re-  
20 quired under subclause (I).

21 “(bb) REQUIREMENTS.—  
22 The amended standards de-  
23 scribed in item (aa) shall reflect  
24 levels of standby and off mode  
25 energy consumption that meet

1 the criteria described in section  
2 325(o).

3 ~~“(III) APPLICABILITY.—~~

4 ~~“(aa) AMENDMENT OF~~  
5 ~~STANDARD.—Section 323(e)(3)~~  
6 ~~shall not apply to the amended~~  
7 ~~standards described in subclause~~  
8 ~~(I).~~

9 ~~“(bb) AMENDED STAND-~~  
10 ~~ARDS.—The amended standards~~  
11 ~~required by this clause shall~~  
12 ~~apply to products manufactured~~  
13 ~~on or after January 1, 2015.~~

14 ~~“(iv) OTHER STANDARDS.—Any dryer~~  
15 ~~energy conservation standard that takes ef-~~  
16 ~~fect after the date of enactment of this~~  
17 ~~subparagraph but before the amended~~  
18 ~~standard required by this subparagraph~~  
19 ~~shall not apply.”.~~

20 **SEC. 123. STANDARDS FOR CLOTHES WASHERS.**

21 Section 325(g)(9) of the Energy Policy and Con-  
22 servation Act (42 U.S.C. 6295(g)(9)) is amended by strik-  
23 ing subparagraph (B) and inserting the following:

24 ~~“(B) AMENDMENT OF STANDARDS.—~~

1                   “(i) PRODUCTS MANUFACTURED ON  
2                   OR AFTER JANUARY 1, 2015.—

3                   “(I) IN GENERAL.—Based on the  
4                   test procedure in effect on July 9,  
5                   2010, clothes washers manufactured  
6                   on or after January 1, 2015, shall  
7                   comply with the minimum modified  
8                   energy factors and maximum water  
9                   factors specified in the table contained  
10                  in subclause (II).

11                  “(II) STANDARDS.—The min-  
12                  imum modified energy factors and  
13                  maximum water factors referred to in  
14                  subclause (I) are as follows:

	“MEF	WF
Top Loading—Standard	1.72	8.0
Top Loading—Compact	1.26	14.0
Front Loading—Standard	2.2	4.5
Front Loading—Compact (less than 1.6 cu. ft. capacity)	1.72	8.0.

15                  “(ii) PRODUCTS MANUFACTURED ON  
16                  OR AFTER JANUARY 1, 2018.—

17                  “(I) IN GENERAL.—Based on the  
18                  test procedure in effect on July 9,  
19                  2010, top-loading clothes washers  
20                  manufactured on or after January 1,



1 2018, shall comply with the minimum  
 2 modified energy factors and maximum  
 3 water factors specified in the table  
 4 contained in subclause (H).

5 “(H) STANDARDS.—The min-  
 6 imum modified energy factors and  
 7 maximum water factors referred to in  
 8 subclause (I) are as follows:

	“MEF	WF
Top Loading—Standard	2.0	6.0
Top Loading—Compact	1.81	11.6.

9 “(iii) FINAL RULE.—

10 “(I) IN GENERAL.—The final  
 11 rule to amend the clothes washer test  
 12 procedure adopted pursuant to section  
 13 323(b)(24)(A) shall amend the stand-  
 14 ards described in clauses (i) and (ii)  
 15 in accordance with the procedures de-  
 16 scribed in section 323(e)(2).

17 “(H) STANDBY AND OFF MODE  
 18 ENERGY CONSUMPTION.—

19 “(aa) INTEGRATION.—The  
 20 Secretary shall integrate standby  
 21 and off mode energy consumption  
 22 into the amended modified en-

1 energy factor standards required  
2 under subclause (I).

3 “(bb) REQUIREMENTS.—

4 The amended modified energy  
5 factor standards described in  
6 item (aa) shall reflect levels of  
7 standby and off mode energy  
8 consumption that meet the cri-  
9 teria described in section 325(o).

10 “(III) APPLICABILITY.—

11 “(aa) AMENDMENT OF  
12 STANDARD.—Section 323(e)(3)  
13 shall not apply to the amended  
14 standards described in subclause  
15 (I).

16 “(bb) AMENDED STANDARDS  
17 FOR PRODUCTS MANUFACTURED  
18 ON OR AFTER JANUARY 1, 2015.—  
19 Amended standards required by  
20 this clause that are based on  
21 clause (i) shall apply to products  
22 manufactured on or after Janu-  
23 ary 1, 2015.

24 “(cc) AMENDED STANDARDS  
25 FOR PRODUCTS MANUFACTURED

1                                   ON OR AFTER JANUARY 1, 2018.—  
 2                                   Amended standards required by  
 3                                   this clause that are based on  
 4                                   clause (ii) shall apply to products  
 5                                   manufactured on or after Janu-  
 6                                   ary 1, 2018.”.

7 **SEC. 124. DISHWASHERS.**

8           Section 325(g)(10) of the Energy Policy and Con-  
 9 servation Act (42 U.S.C. 6295(g)(10)) is amended—

10                   (1) by striking subparagraph (A);

11                   (2) by redesignating subparagraph (B) as sub-  
 12 paragraph (D); and

13                   (3) by inserting before subparagraph (D) (as  
 14 redesignated by paragraph (2)) the following:

15                                   “(A) DISHWASHERS MANUFACTURED ON  
 16 OR AFTER JANUARY 1, 2010.—A dishwasher  
 17 manufactured on or after January 1, 2010,  
 18 shall—

19   “(i) for a standard size dishwasher,  
 20 not exceed 355 kilowatt hours per year and  
 21 6.5 gallons per cycle; and

22   “(ii) for a compact size dishwasher,  
 23 not exceed 260 kilowatt hours per year and  
 24 4.5 gallons per cycle.

1           “(B) DISHWASHERS MANUFACTURED ON  
2 OR AFTER JANUARY 1, 2013.—A dishwasher  
3 manufactured on or after January 1, 2013,  
4 shall—

5           “(i) for a standard size dishwasher,  
6 not exceed 307 kilowatt hours per year and  
7 5.0 gallons per cycle; and

8           “(ii) for a compact size dishwasher,  
9 not exceed 222 kilowatt hours per year and  
10 3.5 gallons per cycle.

11           “(C) REQUIREMENTS OF FINAL RULES.—

12           “(i) IN GENERAL.—Any final rule to  
13 amend the dishwasher test procedure after  
14 July 9, 2010, and before January 1, 2013,  
15 shall amend the standards described in  
16 subparagraph (B) in accordance with the  
17 procedures described in section 323(e)(2).

18           “(ii) APPLICABILITY.—

19           “(I) AMENDMENT OF STAND-  
20 ARD.—Section 323(e)(3) shall not  
21 apply to the amended standards de-  
22 scribed in clause (i).

23           “(II) AMENDED STANDARDS.—

24           The amended standards required by  
25 this subparagraph shall apply to prod-

1                   ucts manufactured on or after Janu-  
2                   ary 1, 2013.”.

3 **SEC. 125. STANDARDS FOR CERTAIN REFLECTOR LAMPS.**

4           Section 325(i) of the Energy Policy and Conservation  
5 Act (42 U.S.C. 6295(i)) is amended by adding at the end  
6 the following:

7                   “(9) REFLECTOR LAMPS.—In conducting  
8 rulemakings for reflector lamps after January 1,  
9 2014, the Secretary shall consider—

10                   “(A) incandescent and nonincandescent  
11 technologies; and

12                   “(B) a new energy-related measure; other  
13 than lumens per watt, that is based on the pho-  
14 tometric distribution of those lamps.”.

15 **SEC. 126. PETITION FOR AMENDED STANDARDS.**

16           Section 325(n) of the Energy Policy and Conserva-  
17 tion Act (42 U.S.C. 6295(n)) is amended—

18                   (1) by redesignating paragraph (3) as para-  
19 graph (5); and

20                   (2) by inserting after paragraph (2) the fol-  
21 lowing:

22                   “(3) NOTICE OF DECISION.—Not later than  
23 180 days after the date of receiving a petition, the  
24 Secretary shall publish in the Federal Register a no-

1        tice of, and explanation for, the decision of the Sec-  
 2        retary to grant or deny the petition.

3            “(4) NEW OR AMENDED STANDARDS.—Not  
 4        later than 3 years after the date of granting a peti-  
 5        tion for new or amended standards, the Secretary  
 6        shall publish in the Federal Register—

7            “(A) a final rule that contains the new or  
 8            amended standards; or

9            “(B) a determination that no new or  
 10        amended standards are necessary.”

11 **SEC. 127. PROHIBITED ACTS.**

12        Section 332(a) of the Energy Policy and Conserva-  
 13        tion Act (42 U.S.C. 6302(a)) is amended—

14            (1) in paragraph (1), by striking “for any man-  
 15        ufacturer or private labeler to distribute” and insert-  
 16        ing “for any manufacturer (or representative of a  
 17        manufacturer), distributor, retailer, or private label-  
 18        er to offer for sale or distribute”;

19            (2) by striking paragraph (5) and inserting the  
 20        following:

21            “(5) for any manufacturer (or representative of  
 22        a manufacturer), distributor, retailer, or private la-  
 23        beler—

24            “(A) to offer for sale or distribute in com-  
 25        merce any new covered product that is not in

1 conformity with an applicable energy conserva-  
2 tion standard established in or prescribed under  
3 this part; or

4 “(B) if the standard is a regional standard  
5 that is more stringent than the base national  
6 standard, to offer for sale or distribute in com-  
7 merce any new covered product having knowl-  
8 edge (consistent with the definition of ‘know-  
9 ingly’ in section 333(b)) that the product will  
10 be installed at a location covered by a regional  
11 standard established in or prescribed under this  
12 part and will not be in conformity with the  
13 standard;”

14 (3) in paragraph (6) (as added by section  
15 306(b)(2) of Public Law 110-140 (121 Stat.  
16 1559)), by striking the period at the end and insert-  
17 ing a semicolon;

18 (4) by redesignating paragraph (6) (as added  
19 by section 321(e)(3) of Public Law 110-140 (121  
20 Stat. 1586)) as paragraph (7);

21 (5) in paragraph (7) (as so redesignated)—

22 (A) by striking “for any manufacturer, dis-  
23 tributor, retailer, or private labeler to dis-  
24 tribute” and inserting “for any manufacturer  
25 (or representative of a manufacturer), dis-

1 tributor, retailer, or private labeler to offer for  
2 sale or distribute"; and

3 (B) by striking the period at the end and  
4 inserting a semicolon; and

5 (6) by inserting after paragraph (7) (as so re-  
6 designated) the following:

7 "(8) for any manufacturer or private labeler to  
8 distribute in commerce any new covered product that  
9 has not been properly certified in accordance with  
10 the requirements established in or prescribed under  
11 this part;

12 "(9) for any manufacturer or private labeler to  
13 distribute in commerce any new covered product that  
14 has not been properly tested in accordance with the  
15 requirements established in or prescribed under this  
16 part; and

17 "(10) for any manufacturer or private labeler to  
18 violate any regulation lawfully promulgated to imple-  
19 ment any provision of this part."

20 **SEC. 128. OUTDOOR LIGHTING.**

21 (a) **DEFINITIONS.**—

22 (1) **COVERED EQUIPMENT.**—Section 340(1) of  
23 the Energy Policy and Conservation Act (42 U.S.C.  
24 6311(1)) is amended—



1           (A) by redesignating subparagraph (L) as  
2           subparagraph (O); and

3           (B) by inserting after subparagraph (K)  
4           the following:

5           “(L) High light output double-ended  
6           quartz halogen lamps.

7           “(M) General purpose mercury vapor  
8           lamps.”.

9           (2) INDUSTRIAL EQUIPMENT.—Section  
10          340(2)(B) of the Energy Policy and Conservation  
11          Act (42 U.S.C. 6311(2)(B)) is amended—

12           (A) by striking “and” before “unfired hot  
13           water”; and

14           (B) by inserting after “tanks” the fol-  
15           lowing: “; high light output double-ended quartz  
16           halogen lamps; and general purpose mercury  
17           vapor lamps”.

18          (3) NEW DEFINITIONS.—Section 340 of the  
19          Energy Policy and Conservation Act (42 U.S.C.  
20          6311) is amended—

21           (A) by redesignating paragraphs (22) and  
22           (23) (as amended by sections 312(a)(2) and  
23           314(a) of the Energy Independence and Secu-  
24           rity Act of 2007 (121 Stat. 1564, 1569)) as  
25           paragraphs (23) and (24), respectively; and

1 (B) by adding at the end the following:

2 “(25) GENERAL PURPOSE MERCURY VAPOR  
3 LAMP.—The term ‘general purpose mercury vapor  
4 lamp’ means a mercury vapor lamp (as defined in  
5 section 321) that—

6 “(A) has a screw base;

7 “(B) is designed for use in general lighting  
8 applications (as defined in section 321);

9 “(C) is not a specialty application mercury  
10 vapor lamp; and

11 “(D) is designed to operate on a mercury  
12 vapor lamp ballast (as defined in section 321)  
13 or is a self-ballasted lamp.

14 “(26) HIGH LIGHT OUTPUT DOUBLE-ENDED  
15 QUARTZ HALOGEN LAMP.—The term ‘high light out-  
16 put double-ended quartz halogen lamp’ means a  
17 lamp that—

18 “(A) is designed for general outdoor light-  
19 ing purposes;

20 “(B) contains a tungsten filament;

21 “(C) has a rated initial lumen value of  
22 greater than 6,000 and less than 40,000  
23 lumens;

24 “(D) has at each end a recessed single  
25 contact, R7s base;

1           “(E) has a maximum overall length (MOL)  
2           between 4 and 11 inches;

3           “(F) has a nominal diameter less than  $\frac{3}{4}$   
4           inch (T6);

5           “(G) is designed to be operated at a volt-  
6           age not less than 110 volts and not greater  
7           than 200 volts or is designed to be operated at  
8           a voltage between 235 volts and 300 volts;

9           “(H) is not a tubular quartz infrared heat  
10          lamp; and

11          “(I) is not a lamp marked and marketed  
12          as a Stage and Studio lamp with a rated life of  
13          500 hours or less.

14          “(27) SPECIALTY APPLICATION MERCURY  
15          VAPOR LAMP.—The term ‘specialty application mer-  
16          cury vapor lamp’ means a mercury vapor lamp (as  
17          defined in section 321) that is—

18                 “(A) designed only to operate on a spe-  
19                 cialty application mercury vapor lamp ballast  
20                 (as defined in section 321); and

21                 “(B) is marked and marketed for specialty  
22                 applications only.

23          “(28) TUBULAR QUARTZ INFRARED HEAT  
24          LAMP.—The term ‘tubular quartz infrared heat

1 lamp' means a double-ended quartz halogen lamp  
2 that—

3 “(A) is marked and marketed as an infra-  
4 red heat lamp; and

5 “(B) radiates predominately in the infra-  
6 red radiation range and in which the visible ra-  
7 diation is not of principle interest.”

8 (b) STANDARDS.—Section 342 of the Energy Policy  
9 and Conservation Act (42 U.S.C. 6313) is amended by  
10 adding at the end the following:

11 “(g) HIGH LIGHT OUTPUT DOUBLE-ENDED QUARTZ  
12 HALOGEN LAMPS.—A high light output double-ended  
13 quartz halogen lamp manufactured on or after January  
14 1, 2016, shall have a minimum efficiency of—

15 “(1) 27 LPW for lamps with a minimum rated  
16 initial lumen value greater than 6,000 and a max-  
17 imum initial lumen value of 15,000; and

18 “(2) 34 LPW for lamps with a rated initial  
19 lumen value greater than 15,000 and less than  
20 40,000.

21 “(h) GENERAL PURPOSE MERCURY VAPOR  
22 LAMPS.—A general purpose mercury vapor lamp shall not  
23 be manufactured on or after January 1, 2016.”

24 (c) PREEMPTION.—Section 345 of the Energy Policy  
25 and Conservation Act (42 U.S.C. 6316) is amended—

1           (1) in the first sentence of subsection (a), by  
 2 striking “The” and inserting “Except as otherwise  
 3 provided in this section, the”; and

4           (2) by adding at the end the following:

5           “(i) HIGH LIGHT OUTPUT DOUBLE-ENDED QUARTZ  
 6 HALOGEN LAMPS.—

7           “(1) IN GENERAL.—Except as provided in para-  
 8 graph (2), section 327 shall apply to high light out-  
 9 put double-ended quartz halogen lamps to the same  
 10 extent and in the same manner as described in sec-  
 11 tion 325(m)(1).

12           “(2) STATE ENERGY CONSERVATION STAND-  
 13 ARDS.—Any State energy conservation standard that  
 14 is adopted on or before January 1, 2015, pursuant  
 15 to a statutory requirement to adopt efficiency stand-  
 16 ard for reducing outdoor lighting energy use enacted  
 17 prior to January 31, 2008, shall not be preempted.”.

18 **SEC. 129. STANDARDS FOR COMMERCIAL FURNACES.**

19           Section 342(a) of the Energy Policy and Conserva-  
 20 tion Act (42 U.S.C. 6313(a)) is amended by adding at  
 21 the end the following:

22           “(11) Warm air furnaces with an input rating  
 23 of 225,000 Btu per hour or more and manufactured  
 24 on or after the date that is 1 year after the date of

1 enactment of this paragraph shall meet the following  
 2 standard levels:

3 ~~“(A) Gas-fired units shall—~~

4 ~~“(i) have a minimum thermal effi-~~  
 5 ~~ciency of 80 percent;~~

6 ~~“(ii) include an interrupted or inter-~~  
 7 ~~mittent ignition device;~~

8 ~~“(iii) have jacket losses not exceeding~~  
 9 ~~0.75 percent of the input rating; and~~

10 ~~“(iv) have power venting or a flue~~  
 11 ~~damper.~~

12 ~~“(B) Oil-fired units shall have—~~

13 ~~“(i) a minimum thermal efficiency of~~  
 14 ~~81 percent;~~

15 ~~“(ii) jacket losses not exceeding 0.75~~  
 16 ~~percent of the input rating; and~~

17 ~~“(iii) power venting or a flue damp-~~  
 18 ~~er.”.~~

19 **SEC. 130. SERVICE OVER THE COUNTER, SELF-CONTAINED,**  
 20 **MEDIUM TEMPERATURE COMMERCIAL RE-**  
 21 **FRIGERATORS.**

22 Section 342(e) of the Energy Policy and Conservation  
 23 Act (42 U.S.C. 6313(e)) is amended—

24 (1) in paragraph (1)—

1           (A) by redesignating subparagraph (C) as  
2           subparagraph (E); and

3           (B) by inserting after subparagraph (B)  
4           the following:

5           “(C) The term ‘service over the counter,  
6           self-contained, medium temperature commercial  
7           refrigerator’ or ‘(SOC-SC-M)’ means a me-  
8           dium temperature commercial refrigerator—

9           “(i) with a self-contained condensing  
10           unit and equipped with sliding or hinged  
11           doors in the back intended for use by sales  
12           personnel, and with glass or other trans-  
13           parent material in the front for displaying  
14           merchandise; and

15           “(ii) that has a height not greater  
16           than 66 inches and is intended to serve as  
17           a counter for transactions between sales  
18           personnel and customers.

19           “(D) The term ‘TDA’ means the total dis-  
20           play area (ft<sup>2</sup>) of the refrigerated case, as de-  
21           fined in AHRI Standard 1200.”;

22           (2) by redesignating paragraphs (4) and (5) as  
23           paragraphs (5) and (6), respectively; and

24           (3) by inserting after paragraph (3) the fol-  
25           lowing:

1           “(4) Each SOC-SC-M manufactured on or  
2 after January 1, 2012, shall have a total daily en-  
3 ergy consumption (in kilowatt hours per day) of not  
4 more than  $0.6 \times TDA + 1.0$ .”.

5 **SEC. 131. MOTOR MARKET ASSESSMENT AND COMMERCIAL**  
6 **AWARENESS PROGRAM.**

7 (a) FINDINGS.—Congress finds that—

8           (1) electric motor systems account for about  
9 half of the electricity used in the United States;

10           (2) electric motor energy use is determined by  
11 both the efficiency of the motor and the system in  
12 which the motor operates;

13           (3) Federal Government research on motor end  
14 use and efficiency opportunities is more than a dec-  
15 ade old; and

16           (4) the Census Bureau has discontinued collec-  
17 tion of data on motor and generator importation,  
18 manufacture, shipment, and sales.

19 (b) DEFINITIONS.—In this section:

20           (1) DEPARTMENT.—The term “Department”  
21 means the Department of Energy.

22           (2) INTERESTED PARTIES.—The term “inter-  
23 ested parties” includes—

24                   (A) trade associations;

25                   (B) motor manufacturers;



1           (C) motor end users;

2           (D) electric utilities; and

3           (E) individuals and entities that conduct  
4 energy efficiency programs.

5           (3) SECRETARY.—The term “Secretary” means  
6 the Secretary of Energy, in consultation with inter-  
7 ested parties.

8           (e) ASSESSMENT.—The Secretary shall conduct an  
9 assessment of electric motors and the electric motor mar-  
10 ket in the United States that shall—

11           (1) include important subsectors of the indus-  
12 trial and commercial electric motor market (as de-  
13 termined by the Secretary), including—

14           (A) the stock of motors and motor-driven  
15 equipment;

16           (B) efficiency categories of the motor pop-  
17 ulation; and

18           (C) motor systems that use drives, servos,  
19 and other control technologies;

20           (2) characterize and estimate the opportunities  
21 for improvement in the energy efficiency of motor  
22 systems by market segment, including opportunities  
23 for—

24           (A) expanded use of drives, servos, and  
25 other control technologies;

1           (B) expanded use of process control,  
2           pumps, compressors, fans or blowers, and mate-  
3           rial handling components; and

4           (C) substitution of existing motor designs  
5           with existing and future advanced motor de-  
6           signs, including electronically commutated per-  
7           manent magnet, interior permanent magnet,  
8           and switched reluctance motors; and

9           (3) develop an updated profile of motor system  
10          purchase and maintenance practices, including sur-  
11          veying the number of companies that have motor  
12          purchase and repair specifications, by company size,  
13          number of employees, and sales.

14          (d) RECOMMENDATIONS; UPDATE.—Based on the as-  
15          sessment conducted under subsection (c), the Secretary  
16          shall—

17                 (1) develop—

18                         (A) recommendations to update the de-  
19                         tailed motor profile on a periodic basis;

20                         (B) methods to estimate the energy sav-  
21                         ings and market penetration that is attributable  
22                         to the Save Energy Now Program of the De-  
23                         partment; and

24                         (C) recommendations for the Director of  
25                         the Census Bureau on market surveys that

1           should be undertaken in support of the motor  
2           system activities of the Department; and

3           ~~(2) prepare an update to the Motor Master+~~  
4           program of the Department.

5           ~~(e) PROGRAM.—Based on the assessment, rec-~~  
6           ~~ommendations, and update required under subsections (e)~~  
7           ~~and (d), the Secretary shall establish a proactive, national~~  
8           ~~program targeted at motor end-users and delivered in co-~~  
9           ~~operation with interested parties to increase awareness~~  
10          ~~of—~~

11           ~~(1) the energy and cost-saving opportunities in~~  
12           ~~commercial and industrial facilities using higher effi-~~  
13           ~~ciency electric motors;~~

14           ~~(2) improvements in motor system procurement~~  
15           ~~and management procedures in the selection of high-~~  
16           ~~er efficiency electric motors and motor-system com-~~  
17           ~~ponents, including drives, controls, and driven equip-~~  
18           ~~ment; and~~

19           ~~(3) criteria for making decisions for new, re-~~  
20           ~~placement, or repair motor and motor system com-~~  
21           ~~ponents.~~

22           **SEC. 132. STUDY OF COMPLIANCE WITH ENERGY STAND-**  
23           **ARDS FOR APPLIANCES.**

24           ~~(a) IN GENERAL.—The Secretary of Energy shall~~  
25           ~~conduct a study of the degree of compliance with energy~~

1 standards for appliances, including an investigation of  
2 compliance rates and options for improving compliance,  
3 including enforcement.

4 (b) REPORT.—Not later than 18 months after the  
5 date of enactment of this Act, the Secretary of Energy  
6 shall submit to the appropriate committees of Congress  
7 a report describing the results of the study, including any  
8 recommendations.

9 **SEC. 133. STUDY OF DIRECT CURRENT ELECTRICITY SUP-**  
10 **PLY IN CERTAIN BUILDINGS.**

11 (a) IN GENERAL.—The Secretary of Energy shall  
12 conduct a study—

13 (1) of the costs and benefits (including signifi-  
14 cant energy efficiency, power quality, and other  
15 power grid, safety, and environmental benefits) of  
16 requiring high-quality, direct current electricity sup-  
17 ply in buildings; and

18 (2) to determine, if the requirement described  
19 in paragraph (1) is imposed, what the policy and  
20 role of the Federal Government should be in real-  
21 izing those benefits.

22 (b) REPORT.—Not later than 1 year after the date  
23 of enactment of this Act, the Secretary shall submit to  
24 the appropriate committees of Congress a report describ-

1 ing the results of the study, including any recommenda-  
 2 tions.

3 **SEC. 134. TECHNICAL CORRECTIONS.**

4 (a) TITLE III OF ENERGY INDEPENDENCE AND SE-  
 5 CURITY ACT OF 2007—ENERGY SAVINGS THROUGH IM-  
 6 PROVED STANDARDS FOR APPLIANCES AND LIGHTING.—

7 (1) Section 325(u) of the Energy Policy and  
 8 Conservation Act (42 U.S.C. 6295(u)) (as amended  
 9 by section 301(e) of the Energy Independence and  
 10 Security Act of 2007 (121 Stat. 1550)) is amend-  
 11 ed—

12 (A) by redesignating paragraph (7) as  
 13 paragraph (4); and

14 (B) in paragraph (4) (as so redesignated),  
 15 by striking “supplies is” and inserting “supply  
 16 is”.

17 (2) Section 302(b) of the Energy Independence  
 18 and Security Act of 2007 (121 Stat. 1551) is  
 19 amended by striking “6313(a)” and inserting  
 20 “6314(a)”.

21 (3) Section 342(a)(6) of the Energy Policy and  
 22 Conservation Act (42 U.S.C. 6313(a)(6)) (as amend-  
 23 ed by section 305(b)(2) of the Energy Independence  
 24 and Security Act of 2007 (121 Stat. 1554)) is  
 25 amended—

1 (A) in subparagraph (B)—

2 (i) by striking “If the Secretary” and  
3 inserting the following:

4 “(i) IN GENERAL.—If the Secretary”;

5 (ii) by striking “clause (ii)(II)” and  
6 inserting “subparagraph (A)(ii)(II)”;

7 (iii) by striking “clause (i)” and in-  
8 serting “subparagraph (A)(i)”;

9 (iv) by adding at the end the fol-  
10 lowing:

11 “(ii) FACTORS.—In determining  
12 whether a standard is economically justi-  
13 fied for the purposes of subparagraph  
14 (A)(ii)(II), the Secretary shall, after receiv-  
15 ing views and comments furnished with re-  
16 spect to the proposed standard, determine  
17 whether the benefits of the standard ex-  
18 ceed the burden of the proposed standard  
19 by, to the maximum extent practicable,  
20 considering—

21 “(I) the economic impact of the  
22 standard on the manufacturers and  
23 on the consumers of the products sub-  
24 ject to the standard;

1           “(II) the savings in operating  
2 costs throughout the estimated aver-  
3 age life of the product in the type (or  
4 class) compared to any increase in the  
5 price of, or in the initial charges for,  
6 or maintenance expenses of, the prod-  
7 ucts that are likely to result from the  
8 imposition of the standard;

9           “(III) the total projected quan-  
10 tity of energy savings likely to result  
11 directly from the imposition of the  
12 standard;

13           “(IV) any lessening of the utility  
14 or the performance of the products  
15 likely to result from the imposition of  
16 the standard;

17           “(V) the impact of any lessening  
18 of competition, as determined in writ-  
19 ing by the Attorney General, that is  
20 likely to result from the imposition of  
21 the standard;

22           “(VI) the need for national en-  
23 ergy conservation; and

24           “(VII) other factors the Sec-  
25 retary considers relevant.

1 “(iii) ADMINISTRATION.—

2 “(I) ENERGY USE AND EFFI-  
3 CIENCY.—The Secretary may not pre-  
4 scribe any amended standard under  
5 this paragraph that increases the  
6 maximum allowable energy use, or de-  
7 creases the minimum required energy  
8 efficiency, of a covered product.

9 “(II) UNAVAILABILITY.—

10 “(aa) IN GENERAL.—The  
11 Secretary may not prescribe an  
12 amended standard under this  
13 subparagraph if the Secretary  
14 finds (and publishes the finding)  
15 that interested persons have es-  
16 tablished by a preponderance of  
17 the evidence that a standard is  
18 likely to result in the unavail-  
19 ability in the United States in  
20 any product type (or class) of  
21 performance characteristics (in-  
22 cluding reliability, features, sizes,  
23 capacities, and volumes) that are  
24 substantially the same as those  
25 generally available in the United



1 States at the time of the finding  
2 of the Secretary.

3 “(bb) OTHER TYPES OR  
4 CLASSES.—The failure of some  
5 types (or classes) to meet the cri-  
6 terion established under this sub-  
7 clause shall not affect the deter-  
8 mination of the Secretary on  
9 whether to prescribe a standard  
10 for the other types or classes.”;  
11 and

12 (B) in subparagraph (C)(iv), by striking  
13 “An amendment prescribed under this sub-  
14 section” and inserting “Notwithstanding sub-  
15 paragraph (D), an amendment prescribed under  
16 this subparagraph”.

17 (4) Section 342(a)(6)(B)(iii) of the Energy Pol-  
18 icy and Conservation Act (as added by section  
19 306(e) of the Energy Independence and Security Act  
20 of 2007 (121 Stat. 1559)) is transferred and reded-  
21 icated as clause (vi) of section 342(a)(6)(C) of the  
22 Energy Policy and Conservation Act (as amended by  
23 section 305(b)(2) of the Energy Independence and  
24 Security Act of 2007 (121 Stat. 1554)).

1           (5) Section 345 of the Energy Policy and Con-  
2           servation Act (42 U.S.C. 6316) (as amended by sec-  
3           tion 312(e) of the Energy Independence and Secu-  
4           rity Act of 2007 (121 Stat. 1567)) is amended—

5                   (A) by striking “subparagraphs (B)  
6                   through (G)” each place it appears and insert-  
7                   ing “subparagraphs (B), (C), (D), (I), (J), and  
8                   (K)”;

9                   (B) by striking “part A” each place it ap-  
10                  pears and inserting “part B”; and

11                  (C) in subsection (a)—

12                          (i) in paragraph (8), by striking  
13                          “and” at the end;

14                          (ii) in paragraph (9), by striking the  
15                          period at the end and inserting “; and”;  
16                          and

17                          (iii) by adding at the end the fol-  
18                          lowing:

19                          “(10) section 327 shall apply with respect to  
20                          the equipment described in section 340(1)(L) begin-  
21                          ning on the date on which a final rule establishing  
22                          an energy conservation standard is issued by the  
23                          Secretary, except that any State or local standard  
24                          prescribed or enacted for the equipment before the  
25                          date on which the final rule is issued shall not be

1 preempted until the energy conservation standard  
 2 established by the Secretary for the equipment takes  
 3 effect.”; and

4 (D) in subsection (h)(3), by striking “sec-  
 5 tion 342(f)(3)” and inserting “section  
 6 342(f)(4)”.

7 (6) Section 340(13) of the Energy Policy and  
 8 Conservation Act (42 U.S.C. 6311(13)) (as amended  
 9 by section 313(a) of the Energy Independence and  
 10 Security Act of 2007 (121 Stat. 1568)) is amend-  
 11 ed—

12 (A) by striking subparagraphs (A) and (B)  
 13 and inserting the following:

14 “(A) IN GENERAL.—The term ‘electric  
 15 motor’ means any of the following:

16 “(i) A motor that is a general purpose  
 17 T-frame, single-speed, foot-mounting, poly-  
 18 phase squirrel-cage induction motor of the  
 19 National Electrical Manufacturers Associa-  
 20 tion, Design A and B, continuous rated,  
 21 operating on 230/460 volts and constant  
 22 60 Hertz line power as defined in NEMA  
 23 Standards Publication MG1–1987.

24 “(ii) A motor incorporating the design  
 25 elements described in clause (i), but is con-

1 figured to incorporate 1 or more of the fol-  
2 lowing variations:

3 “(I) U-frame motor.

4 “(II) NEMA Design C motor.

5 “(III) Close-coupled pump motor.

6 “(IV) Footless motor.

7 “(V) Vertical solid shaft normal  
8 thrust motor (as tested in a horizontal  
9 configuration).

10 “(VI) 8-pole motor.

11 “(VII) Poly-phase motor with a  
12 voltage rating of not more than 600  
13 volts (other than 230 volts or 460  
14 volts, or both, or can be operated on  
15 230 volts or 460 volts, or both).”;

16 (B) by redesignating subparagraphs (C)  
17 through (I) as subparagraphs (B) through (H),  
18 respectively.

19 (7)(A) Section 342(b) of the Energy Policy and  
20 Conservation Act (42 U.S.C. 6313(b)) is amended—

21 (i) in paragraph (1), by striking “para-  
22 graph (2)” and inserting “paragraph (3)”;

23 (ii) by redesignating paragraphs (2) and  
24 (3) as paragraphs (3) and (4);

1           (iii) by inserting after paragraph (1) the  
2 following:

3           ~~“(2) STANDARDS EFFECTIVE BEGINNING DE-~~  
4           ~~CEMBER 19, 2010.—~~

5           ~~“(A) IN GENERAL.—Except for definite~~  
6           ~~purpose motors, special purpose motors, and~~  
7           ~~those motors exempted by the Secretary under~~  
8           ~~paragraph (3) and except as provided for in~~  
9           ~~subparagraphs (B), (C), and (D), each electric~~  
10           ~~motor manufactured with power ratings from 1~~  
11           ~~to 200 horsepower (alone or as a component of~~  
12           ~~another piece of equipment) on or after Decem-~~  
13           ~~ber 19, 2010, shall have a nominal full load ef-~~  
14           ~~iciency of not less than the nominal full load~~  
15           ~~efficiency described in NEMA MG-1 (2006)~~  
16           ~~Table 12-12.~~

17           ~~“(B) FIRE PUMP ELECTRIC MOTORS.—Ex-~~  
18           ~~cept for those motors exempted by the Sec-~~  
19           ~~retary under paragraph (3), each fire pump~~  
20           ~~electric motor manufactured with power ratings~~  
21           ~~from 1 to 200 horsepower (alone or as a compo-~~  
22           ~~nent of another piece of equipment) on or after~~  
23           ~~December 19, 2010, shall have a nominal full~~  
24           ~~load efficiency that is not less than the nominal~~

1 full load efficiency described in NEMA MG-1  
2 (2006) Table 12-11.

3 “(C) NEMA DESIGN B ELECTRIC MO-  
4 TORS.—Except for those motors exempted by  
5 the Secretary under paragraph (3), each  
6 NEMA Design B electric motor with power rat-  
7 ings of more than 200 horsepower, but not  
8 greater than 500 horsepower, manufactured  
9 (alone or as a component of another piece of  
10 equipment) on or after December 19, 2010,  
11 shall have a nominal full load efficiency of not  
12 less than the nominal full load efficiency de-  
13 scribed in NEMA MG-1 (2006) Table 12-11.

14 “(D) MOTORS INCORPORATING CERTAIN  
15 DESIGN ELEMENTS.—Except for those motors  
16 exempted by the Secretary under paragraph  
17 (3), each electric motor described in section  
18 340(13)(A)(ii) manufactured with power rat-  
19 ings from 1 to 200 horsepower (alone or as a  
20 component of another piece of equipment) on or  
21 after December 19, 2010, shall have a nominal  
22 full load efficiency of not less than the nominal  
23 full load efficiency described in NEMA MG-1  
24 (2006) Table 12-11.”; and

1           (iv) in paragraph (3) (as redesignated by  
2           clause (ii)), by striking “paragraph (1)” each  
3           place it appears in subparagraphs (A) and (D)  
4           and inserting “paragraphs (1) and (2)”.

5           (B) Section 313 of the Energy Independence  
6           and Security Act of 2007 (121 Stat. 1568) is re-  
7           pealed.

8           (C) The amendments made by—

9           (i) subparagraph (A) take effect on De-  
10          cember 19, 2010; and

11          (ii) subparagraph (B) take effect on De-  
12          cember 19, 2007.

13          (8) Section 321(30)(D)(i)(III) of the Energy  
14          Policy and Conservation Act (42 U.S.C.  
15          6291(30)(D)(i)(III)) (as amended by section  
16          321(a)(1)(A) of the Energy Independence and Secu-  
17          rity Act of 2007 (121 Stat. 1574)) is amended by  
18          inserting before the semicolon the following: “or, in  
19          the case of a modified spectrum lamp, not less than  
20          232 lumens and not more than 1,950 lumens”.

21          (9) Section 321(30)(T) of the Energy Policy  
22          and Conservation Act (42 U.S.C. 6291(30)(T)) (as  
23          amended by section 321(a)(1)(B) of the Energy  
24          Independence and Security Act of 2007 (121 Stat.  
25          1574)) is amended—

1 (A) in clause (i)—

2 (i) by striking the comma after  
3 “household appliance” and inserting  
4 “and”; and

5 (ii) by striking “and is sold at retail,”;  
6 and

7 (B) in clause (ii), by inserting “when sold  
8 at retail,” before “is designated”.

9 (10) Section 325(i) of the Energy Policy and  
10 Conservation Act (42 U.S.C. 6295(i)) (as amended  
11 by sections 321(a)(3)(A) and 322(b) of the Energy  
12 Independence and Security Act of 2007 (121 Stat.  
13 1577, 1588)) is amended by striking the subsection  
14 designation and all that follows through the end of  
15 paragraph (8) and inserting the following:

16 “(i) GENERAL SERVICE FLUORESCENT LAMPS, GEN-  
17 ERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE  
18 BASE INCANDESCENT LAMPS, CANDELABRA BASE INCAN-  
19 DESCENT LAMPS, AND INCANDESCENT REFLECTOR  
20 LAMPS.—

21 “(1) ENERGY EFFICIENCY STANDARDS.—

22 “(A) IN GENERAL.—Each of the following  
23 general service fluorescent lamps, general serv-  
24 ice incandescent lamps, intermediate base in-  
25 candescent lamps, candelabra base incandescent



1 lamps, and incandescent reflector lamps manu-  
 2 factured after the effective date specified in the  
 3 tables listed in this subparagraph shall meet or  
 4 exceed the standards established in the fol-  
 5 lowing tables:

“FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficiency (LPW)	Effective Date (Period of Months)
4-foot medium bi-pin .....	>35 W	69	75.0	36
.....	≤35 W	45	75.0	36
2-foot U-shaped .....	>35 W	69	68.0	36
.....	≤35 W	45	64.0	36
8-foot slimline .....	>65 W	69	80.0	18
.....	≤65 W	45	80.0	18
8-foot high output .....	>100 W	69	80.0	18
.....	≤100 W	45	80.0	18.

“INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficiency (LPW)	Effective Date (Period of Months)
40-50 .....	10.5	36
51-66 .....	11.0	36
67-85 .....	12.5	36
86-115 .....	14.0	36
116-155 .....	14.5	36
156-205 .....	15.0	36.

“GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	Maximum Rated Wattage	Minimum Rated Life-time	Effective Date
1490-2600	72	1,000 hrs	1/1/2012
1050-1489	53	1,000 hrs	1/1/2013
750-1049	43	1,000 hrs	1/1/2014
310-749	29	1,000 hrs	1/1/2014.

“MODIFIED SPECTRUM GENERAL SERVICE INCANDESCENT LAMPS

Rated Lumen Ranges	Maximum Rated Wattage	Minimum Rated Life-time	Effective Date
1118-1950	72	1,000 hrs	1/1/2012
788-1117	53	1,000 hrs	1/1/2013
563-787	43	1,000 hrs	1/1/2014

“MODIFIED SPECTRUM GENERAL SERVICE INCANDESCENT  
LAMPS—Continued

Rated Lumen Ranges	Maximum Rated Wattage	Minimum Rated Life-time	Effective Date
232–562	29	1,000 hrs	1/1/2014.

1 “(B) APPLICATION.—

2 “(i) APPLICATION CRITERIA.—This  
3 subparagraph applies to each lamp that—

4 “(I) is intended for a general  
5 service or general illumination applica-  
6 tion (whether incandescent or not);

7 “(II) has a medium screw base  
8 or any other screw base not defined in  
9 ANSI C81.61–2006;

10 “(III) is capable of being oper-  
11 ated at a voltage at least partially  
12 within the range of 110 to 130 volts;  
13 and

14 “(IV) is manufactured or im-  
15 ported after December 31, 2011.

16 “(ii) REQUIREMENT.—For purposes  
17 of this paragraph, each lamp described in  
18 clause (i) shall have a color rendering  
19 index that is greater than or equal to—

20 “(I) 80 for nonmodified spectrum  
21 lamps; or

1                   “(H) 75 for modified spectrum  
2                   lamps.

3                   “(C) CANDELABRA INCANDESCENT LAMPS  
4                   AND INTERMEDIATE BASE INCANDESCENT  
5                   LAMPS.—

6                   “(i) CANDELABRA BASE INCANDES-  
7                   CENT LAMPS.—Effective beginning Janu-  
8                   ary 1, 2012, a candelabra base incandes-  
9                   cent lamp shall not exceed 60 rated watts.

10                  “(ii) INTERMEDIATE BASE INCANDES-  
11                  CENT LAMPS.—Effective beginning Janu-  
12                  ary 1, 2012, an intermediate base incan-  
13                  descent lamp shall not exceed 40 rated  
14                  watts.

15                  “(D) EXEMPTIONS.—

16                  “(i) STATUTORY EXEMPTIONS.—The  
17                  standards specified in subparagraph (A)  
18                  shall not apply to the following types of in-  
19                  candescent reflector lamps:

20                         “(I) Lamps rated at 50 watts or  
21                         less that are ER30, BR30, BR40, or  
22                         ER40 lamps.

23                         “(II) Lamps rated at 65 watts  
24                         that are BR30, BR40, or ER40  
25                         lamps.

1                   “(III) R20 incandescent reflector  
2                   lamps rated 45 watts or less.

3                   “(ii)     ADMINISTRATIVE     EXEMP-  
4                   TIONS.—

5                   “(I) PETITION.—Any person may  
6                   petition the Secretary for an exemp-  
7                   tion for a type of general service lamp  
8                   from the requirements of this sub-  
9                   section.

10                  “(II) CRITERIA.—The Secretary  
11                  may grant an exemption under sub-  
12                  clause (I) only to the extent that the  
13                  Secretary finds, after a hearing and  
14                  opportunity for public comment, that  
15                  it is not technically feasible to serve a  
16                  specialized lighting application (such  
17                  as a military, medical, public safety,  
18                  or certified historic lighting applica-  
19                  tion) using a lamp that meets the re-  
20                  quirements of this subsection.

21                  “(III) ADDITIONAL CRITERION.—  
22                  To grant an exemption for a product  
23                  under this clause, the Secretary shall  
24                  include, as an additional criterion,  
25                  that the exempted product is unlikely

1 to be used in a general service lighting  
2 application.

3 ~~“(E) EXTENSION OF COVERAGE.—~~

4 ~~“(i) PETITION.—Any person may peti-~~  
5 ~~tion the Secretary to establish standards~~  
6 ~~for lamp shapes or bases that are excluded~~  
7 ~~from the definition of general service~~  
8 ~~lamps.~~

9 ~~“(ii) INCREASED SALES OF EXEMPT-~~  
10 ~~ED LAMPS.—The petition shall include evi-~~  
11 ~~dence that the availability or sales of ex-~~  
12 ~~empted incandescent lamps have increased~~  
13 ~~significantly since the date on which the~~  
14 ~~standards on general service incandescent~~  
15 ~~lamps were established.~~

16 ~~“(iii) CRITERIA.—The Secretary shall~~  
17 ~~grant a petition under clause (i) if the Sec-~~  
18 ~~retary finds that—~~

19 ~~“(I) the petition presents evi-~~  
20 ~~dence that demonstrates that commer-~~  
21 ~~cial availability or sales of exempted~~  
22 ~~incandescent lamp types have in-~~  
23 ~~creased significantly since the stand-~~  
24 ~~ards on general service lamps were es-~~  
25 ~~tablished and likely are being widely~~

1 used in general lighting applications;  
2 and

3 “(H) significant energy savings  
4 could be achieved by covering exempt-  
5 ed products, as determined by the  
6 Secretary based in part on sales data  
7 provided to the Secretary from manu-  
8 facturers and importers.

9 “(iv) NO PRESUMPTION.—The grant  
10 of a petition under this subparagraph shall  
11 create no presumption with respect to the  
12 determination of the Secretary with respect  
13 to any criteria under a rulemaking con-  
14 ducted under this section.

15 “(v) EXPEDITED PROCEEDING.—If  
16 the Secretary grants a petition for a lamp  
17 shape or base under this subparagraph,  
18 the Secretary shall—

19 “(I) conduct a rulemaking to de-  
20 termine standards for the exempted  
21 lamp shape or base; and

22 “(II) complete the rulemaking  
23 not later than 18 months after the  
24 date on which notice is provided  
25 granting the petition.

1                   “(F) EFFECTIVE DATES.—

2                   “(i) IN GENERAL.—In this paragraph,  
3                   except as otherwise provided in a table  
4                   contained in subparagraph (A) or in clause  
5                   (ii), the term ‘effective date’ means the last  
6                   day of the period of months specified in  
7                   the table after October 24, 1992.

8                   “(ii) SPECIAL EFFECTIVE DATES.—

9                   “(I) ER, BR, AND BPAR  
10                  LAMPS.—The standards specified in  
11                  subparagraph (A) shall apply with re-  
12                  spect to ER incandescent reflector  
13                  lamps, BR incandescent reflector  
14                  lamps, BPAR incandescent reflector  
15                  lamps, and similar bulb shapes on and  
16                  after January 1, 2008, or the date  
17                  that is 180 days after the date of en-  
18                  actment of the Energy Independence  
19                  and Security Act of 2007.

20                  “(II) LAMPS BETWEEN 2.25–2.75  
21                  INCHES IN DIAMETER.—The stand-  
22                  ards specified in subparagraph (A)  
23                  shall apply with respect to incandes-  
24                  cent reflector lamps with a diameter  
25                  of more than 2.25 inches, but not

1 more than 2.75 inches, on and after  
2 the later of January 1, 2008, or the  
3 date that is 180 days after the date of  
4 enactment of the Energy Independ-  
5 ence and Security Act of 2007.

6 ~~“(2) COMPLIANCE WITH EXISTING LAW.—Not-~~  
7 ~~withstanding section 332(a)(5) and section 332(b),~~  
8 ~~it shall not be unlawful for a manufacturer to sell~~  
9 ~~a lamp that is in compliance with the law at the~~  
10 ~~time the lamp was manufactured.~~

11 ~~“(3) RULEMAKING BEFORE OCTOBER 24,~~  
12 ~~1995.—~~

13 ~~“(A) IN GENERAL.—Not later than 36~~  
14 ~~months after October 24, 1992, the Secretary~~  
15 ~~shall initiate a rulemaking procedure and shall~~  
16 ~~publish a final rule not later than the end of~~  
17 ~~the 54-month period beginning on October 24,~~  
18 ~~1992, to determine whether the standards es-~~  
19 ~~tablished under paragraph (1) should be~~  
20 ~~amended.~~

21 ~~“(B) ADMINISTRATION.—The rule shall~~  
22 ~~contain the amendment, if any, and provide~~  
23 ~~that the amendment shall apply to products~~  
24 ~~manufactured on or after the 36-month period~~



1 beginning on the date on which the final rule is  
2 published.

3 ~~“(4) RULEMAKING BEFORE OCTOBER 24,~~  
4 ~~2000.—~~

5 ~~“(A) IN GENERAL.—Not later than 8 years~~  
6 ~~after October 24, 1992, the Secretary shall ini-~~  
7 ~~tiate a rulemaking procedure and shall publish~~  
8 ~~a final rule not later than 9 years and 6 months~~  
9 ~~after October 24, 1992, to determine whether~~  
10 ~~the standards in effect for fluorescent lamps~~  
11 ~~and incandescent lamps should be amended.~~

12 ~~“(B) ADMINISTRATION.—The rule shall~~  
13 ~~contain the amendment, if any, and provide~~  
14 ~~that the amendment shall apply to products~~  
15 ~~manufactured on or after the 36-month period~~  
16 ~~beginning on the date on which the final rule is~~  
17 ~~published.~~

18 ~~“(5) RULEMAKING FOR ADDITIONAL GENERAL~~  
19 ~~SERVICE FLUORESCENT LAMPS.—~~

20 ~~“(A) IN GENERAL.—Not later than the~~  
21 ~~end of the 24-month period beginning on the~~  
22 ~~date labeling requirements under section~~  
23 ~~324(a)(2)(C) become effective, the Secretary~~  
24 ~~shall—~~

1           “(i) initiate a rulemaking procedure to  
 2           determine whether the standards in effect  
 3           for fluorescent lamps and incandescent  
 4           lamps should be amended so that the  
 5           standards would be applicable to additional  
 6           general service fluorescent lamps; and

7           “(ii) publish, not later than 18  
 8           months after initiating the rulemaking, a  
 9           final rule including the amended stand-  
 10          ards, if any.

11          “(B) ADMINISTRATION.—The rule shall  
 12          provide that the amendment shall apply to  
 13          products manufactured after a date which is 36  
 14          months after the date on which the rule is pub-  
 15          lished.

16          “(6) STANDARDS FOR GENERAL SERVICE  
 17          LAMPS.—

18           “(A) RULEMAKING BEFORE JANUARY 1,  
 19           2014.—

20           “(i) IN GENERAL.—Not later than  
 21           January 1, 2014, the Secretary shall ini-  
 22           tiate a rulemaking procedure to determine  
 23           whether—

1           “(I) standards in effect for gen-  
2           eral service lamps should be amended;  
3           and

4           “(II) the exclusions for certain  
5           incandescent lamps should be main-  
6           tained or discontinued based, in part,  
7           on excluded lamp sales collected by  
8           the Secretary from manufacturers.

9           “(ii) SCOPE.—The rulemaking—

10           “(I) shall not be limited to incan-  
11           descent lamp technologies; and

12           “(II) shall include consideration  
13           of a minimum standard of 45 lumens  
14           per watt for general service lamps.

15           “(iii) AMENDED STANDARDS.—If the  
16           Secretary determines that the standards in  
17           effect for general service lamps should be  
18           amended, the Secretary shall publish a  
19           final rule not later than January 1, 2017,  
20           with an effective date that is not earlier  
21           than 3 years after the date on which the  
22           final rule is published.

23           “(iv) PHASED-IN EFFECTIVE  
24           DATES.—The Secretary shall consider

1           phased-in effective dates under this sub-  
2           paragraph after considering—

3                   “(I) the impact of any amend-  
4                   ment on manufacturers; retiring and  
5                   repurposing existing equipment;  
6                   stranded investments; labor contracts;  
7                   workers; and raw materials; and

8                   “(II) the time needed to work  
9                   with retailers and lighting designers  
10                  to revise sales and marketing strate-  
11                  gies.

12                  “(v) BACKSTOP REQUIREMENT.—If  
13                  the Secretary fails to complete a rule-  
14                  making in accordance with clauses (i)  
15                  through (iv) or if the final rule does not  
16                  produce savings that are greater than or  
17                  equal to the savings from a minimum effi-  
18                  cacy standard of 45 lumens per watt, effec-  
19                  tive beginning January 1, 2020, the Sec-  
20                  retary shall prohibit the manufacture of  
21                  any general service lamp that does not  
22                  meet a minimum efficacy standard of 45  
23                  lumens per watt.

24                  “(vi) STATE PREEMPTION.—Neither  
25                  section 327 nor any other provision of law

1 shall preclude California or Nevada from  
 2 adopting, effective beginning on or after  
 3 January 1, 2018—

4 “(I) a final rule adopted by the  
 5 Secretary in accordance with clauses  
 6 (i) through (iv);

7 “(II) if a final rule described in  
 8 subclause (I) has not been adopted,  
 9 the backstop requirement under  
 10 clause (v); or

11 “(III) in the case of California, if  
 12 a final rule described in subclause (I)  
 13 has not been adopted, any California  
 14 regulations relating to these covered  
 15 products adopted pursuant to State  
 16 statute in effect on the date of enact-  
 17 ment of the Energy Independence and  
 18 Security Act of 2007.

19 “(B) RULEMAKING BEFORE JANUARY 1,  
 20 2020.—

21 “(i) IN GENERAL.—Not later than  
 22 January 1, 2020, the Secretary shall ini-  
 23 tiate a rulemaking procedure to determine  
 24 whether—

1           “(I) standards in effect for gen-  
2           eral service lamps should be amended;  
3           and

4           “(II) the exclusions for certain  
5           incandescent lamps should be main-  
6           tained or discontinued based, in part,  
7           on excluded lamp sales data collected  
8           by the Secretary from manufacturers.

9           “(ii) SCOPE.—The rulemaking shall  
10          not be limited to incandescent lamp tech-  
11          nologies.

12          “(iii) AMENDED STANDARDS.—If the  
13          Secretary determines that the standards in  
14          effect for general service lamps should be  
15          amended, the Secretary shall publish a  
16          final rule not later than January 1, 2022,  
17          with an effective date that is not earlier  
18          than 3 years after the date on which the  
19          final rule is published.

20          “(iv) PHASED-IN EFFECTIVE  
21          DATES.—The Secretary shall consider  
22          phased-in effective dates under this sub-  
23          paragraph after considering—

24                 “(I) the impact of any amend-  
25                 ment on manufacturers, retiring and

1 repurposing existing equipment,  
 2 stranded investments, labor contracts,  
 3 workers, and raw materials; and

4 “(H) the time needed to work  
 5 with retailers and lighting designers  
 6 to revise sales and marketing strate-  
 7 gies.

8 “(7) FEDERAL ACTIONS.—

9 “(A) COMMENTS OF SECRETARY.—

10 “(i) IN GENERAL.—With respect to  
 11 any lamp to which standards are applicable  
 12 under this subsection or any lamp specified  
 13 in section 346, the Secretary shall inform  
 14 any Federal entity proposing actions that  
 15 would adversely impact the energy con-  
 16 sumption or energy efficiency of the lamp  
 17 of the energy conservation consequences of  
 18 the action.

19 “(ii) CONSIDERATION.—The Federal  
 20 entity shall carefully consider the com-  
 21 ments of the Secretary.

22 “(B) AMENDMENT OF STANDARDS.—Not-  
 23 withstanding section 325(n)(1), the Secretary  
 24 shall not be prohibited from amending any  
 25 standard, by rule, to permit increased energy

1 use or to decrease the minimum required en-  
2 ergy efficiency of any lamp to which standards  
3 are applicable under this subsection if the ac-  
4 tion is warranted as a result of other Federal  
5 action (including restrictions on materials or  
6 processes) that would have the effect of either  
7 increasing the energy use or decreasing the en-  
8 ergy efficiency of the product.

9 “(S) COMPLIANCE.—

10 “(A) IN GENERAL.—Not later than the  
11 date on which standards established pursuant  
12 to this subsection become effective, or, with re-  
13 spect to high-intensity discharge lamps covered  
14 under section 346, the effective date of stand-  
15 ards established pursuant to that section, each  
16 manufacturer of a product to which the stand-  
17 ards are applicable shall file with the Secretary  
18 a laboratory report certifying compliance with  
19 the applicable standard for each lamp type.

20 “(B) CONTENTS.—The report shall include  
21 the lumen output and wattage consumption for  
22 each lamp type as an average of measurements  
23 taken over the preceding 12-month period.

24 “(C) OTHER LAMP TYPES.—With respect  
25 to lamp types that are not manufactured during



1 the 12-month period preceding the date on  
2 which the standards become effective; the re-  
3 port shall—

4 “(i) be filed with the Secretary not  
5 later than the date that is 12 months after  
6 the date on which manufacturing is com-  
7 menced; and

8 “(ii) include the lumen output and  
9 wattage consumption for each such lamp  
10 type as an average of measurements taken  
11 during the 12-month period.”.

12 ~~(11) Section 325(l)(4)(A) of the Energy Policy~~  
13 ~~and Conservation Act (42 U.S.C. 6295(l)(4)(A)) (as~~  
14 ~~amended by section 321(a)(3)(B) of the Energy~~  
15 ~~Independence and Security Act of 2007 (121 Stat.~~  
16 ~~1581)) is amended by striking “only”.~~

17 ~~(12) Section 327(b)(1)(B) of the Energy Policy~~  
18 ~~and Conservation Act (42 U.S.C. 6297(b)(1)(B)) (as~~  
19 ~~amended by section 321(d)(3) of the Energy Inde-~~  
20 ~~pendence and Security Act of 2007 (121 Stat.~~  
21 ~~1585)) is amended—~~

22 (A) in clause (i), by inserting “and” after  
23 the semicolon at the end;

24 (B) in clause (ii), by striking “; and” and  
25 inserting a period; and

1                   (C) by striking clause (iii).

2                   (13) Section 321(30)(C)(ii) of the Energy Pol-  
3           icy and Conservation Act (42 U.S.C.  
4           6291(30)(C)(ii)) (as amended by section  
5           322(a)(1)(B) of the Energy Independence and Secu-  
6           rity Act of 2007 (121 Stat. 1587)) is amended by  
7           inserting a period after “40 watts or higher”.

8                   (14) Section 322(b) of the Energy Independ-  
9           ence and Security Act of 2007 (121 Stat. 1588) is  
10          amended by striking “6995(i)” and inserting  
11          “6295(i)”.

12                  (15) Section 327(e) of the Energy Policy and  
13          Conservation Act (42 U.S.C. 6297(e)) (as amended  
14          by sections 324(f) of the Energy Independence and  
15          Security Act of 2007 (121 Stat. 1594) and section  
16          6(e)(2)) is amended—

17                   (A) in paragraph (6), by striking “or”  
18                  after the semicolon at the end;

19                   (B) in paragraph (9)(B), by striking “or”  
20                  at the end;

21                   (C) in paragraph (10), by striking the pe-  
22                  riod at the end and inserting a semicolon;

23                   (D) by adding at the end the following:

1           “(11) is a regulation for general service lamps  
2 that conforms with Federal standards and effective  
3 dates; or

4           “(12) is an energy efficiency standard for gen-  
5 eral service lamps enacted into law by the State of  
6 Nevada prior to December 19, 2007, if the State has  
7 not adopted the Federal standards and effective  
8 dates pursuant to subsection (b)(1)(B)(ii).”.

9           (16) Section 325(b) of the Energy Independ-  
10 ence and Security Act of 2007 (121 Stat. 1596) is  
11 amended by striking “6924(e)” and inserting  
12 “6294(e)”.

13           (17) This subsection and the amendments made  
14 by this subsection take effect as if included in the  
15 Energy Independence and Security Act of 2007  
16 (Public Law 110–140; 121 Stat. 1492).

17           (b) ENERGY POLICY ACT OF 2005.—

18           (1) Section 325(g)(8)(C)(ii) of the Energy Pol-  
19 icy and Conservation Act (42 U.S.C.  
20 6295(g)(8)(C)(ii)) (as added by section 135(e)(2)(B)  
21 of the Energy Policy Act of 2005) is amended by  
22 striking “20°F” and inserting “–20°F”.

23           (2) This subsection and the amendment made  
24 by this subsection take effect as if included in the

1 Energy Policy Act of 2005 (Public Law 109–58; 119  
2 Stat. 594).

3 (c) ENERGY POLICY AND CONSERVATION ACT.—

4 (1) Section 340(2)(B) of the Energy Policy and  
5 Conservation Act (42 U.S.C. 6311(2)(B)) is amend-  
6 ed—

7 (A) in clause (xi), by striking “and” at the  
8 end;

9 (B) in clause (xii), by striking the period  
10 at the end and inserting “; and”; and

11 (C) by adding at the end the following:

12 “(xiii) other motors.”

13 (2) Section 343(a) of the Energy Policy and  
14 Conservation Act (42 U.S.C. 6314(a)) is amended  
15 by striking “Air-Conditioning and Refrigeration In-  
16 stitute” each place it appears in paragraphs (4)(A)  
17 and (7) and inserting “Air-Conditioning, Heating,  
18 and Refrigeration Institute”.

## 19 **Subtitle C—Worker Training and** 20 **Capacity Building**

21 **SEC. 141. BUILDING TRAINING AND ASSESSMENT CENTERS.**

22 (a) IN GENERAL.—The Secretary of Energy shall  
23 provide grants to institutions of higher education (as de-  
24 fined in section 101 of the Higher Education Act of 1965  
25 (20 U.S.C. 1001)) and Tribal Colleges or Universities (as

1 defined in section ~~316(b)~~ of that Act (~~20 U.S.C. 1059c(b)~~)  
2 to establish building training and assessment centers—

3           (1) to identify opportunities for optimizing en-  
4           ergy efficiency and environmental performance in  
5           buildings;

6           (2) to promote the application of emerging con-  
7           cepts and technologies in commercial and institu-  
8           tional buildings;

9           (3) to train engineers, architects, building sci-  
10          entists, building energy permitting and enforcement  
11          officials, and building technicians in energy-efficient  
12          design and operation;

13          (4) to assist institutions of higher education  
14          and Tribal Colleges or Universities in training build-  
15          ing technicians;

16          (5) to promote research and development for  
17          the use of alternative energy sources to supply heat  
18          and power for buildings, particularly energy-inten-  
19          sive buildings; and

20          (6) to coordinate with and assist State-accred-  
21          ited technical training centers, community colleges,  
22          Tribal Colleges or Universities, and local offices of  
23          the National Institute of Food and Agriculture and  
24          ensure appropriate services are provided under this  
25          section to each region of the United States.

1 (b) COORDINATION AND NONDUPLICATION.—

2 (1) IN GENERAL.—The Secretary shall coordi-  
3 nate the program with the Industrial Assessment  
4 Centers program and with other Federal programs  
5 to avoid duplication of effort.

6 (2) COLLOCATION.—To the maximum extent  
7 practicable, building, training, and assessment cen-  
8 ters established under this section shall be collocated  
9 with Industrial Assessment Centers.

10 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
11 are authorized to be appropriated such sums as are nec-  
12 essary to carry out this section.

13 **TITLE II—BUILDING EFFICIENCY**  
14 **FINANCE**

15 **SEC. 201. RURAL ENERGY SAVINGS PROGRAM.**

16 Title VI of the Farm Security and Rural Investment  
17 Act of 2002 (7 U.S.C. 7901 note et seq.) is amended by  
18 adding the following:

19 **“SEC. 6407. RURAL ENERGY SAVINGS PROGRAM.**

20 “(a) PURPOSE.—The purpose of this section is to ere-  
21 ate and save jobs by providing loans to qualified con-  
22 sumers that will use the loan proceeds to implement en-  
23 ergy efficiency measures to achieve significant reductions  
24 in energy costs, energy consumption, or carbon emissions.

25 “(b) DEFINITIONS.—In this section:

1           “(1) ELIGIBLE ENTITY.—The term ‘eligible en-  
2           tity’ means—

3                   “(A) any public power district, public util-  
4                   ity district, or similar entity, or any electric co-  
5                   operative described in sections 501(e)(12) or  
6                   1381(a)(2)(C) of the Internal Revenue Code of  
7                   1986, that borrowed and repaid, prepaid, or is  
8                   paying an electric loan made or guaranteed by  
9                   the Rural Utilities Service (or any predecessor  
10                  agency); or

11                  “(B) any entity primarily owned or con-  
12                  trolled by an entity or entities described in sub-  
13                  paragraph (A).

14           “(2) ENERGY EFFICIENCY MEASURES.—The  
15           term ‘energy efficiency measures’ means, for or at  
16           property served by an eligible entity, structural im-  
17           provements and investments in cost-effective, com-  
18           mercial technologies to increase energy efficiency.

19           “(3) QUALIFIED CONSUMER.—The term ‘quali-  
20           fied consumer’ means a consumer served by an eligi-  
21           ble entity that has the ability to repay a loan made  
22           under subsection (d), as determined by an eligible  
23           entity.

1           “(4) SECRETARY.—The term ‘Secretary’ means  
2 the Secretary of Agriculture, acting through the  
3 Rural Utilities Service.

4           “(c) LOANS TO ELIGIBLE ENTITIES.—

5           “(1) LOANS AUTHORIZED.—Subject to para-  
6 graph (2), the Secretary shall make loans to eligible  
7 entities that agree to use the loan funds to make  
8 loans to qualified consumers as described in sub-  
9 section (d) for the purpose of implementing energy  
10 efficiency measures.

11           “(2) LIST, PLAN, AND MEASUREMENT AND  
12 VERIFICATION REQUIRED.—

13           “(A) IN GENERAL.—As a condition to re-  
14 ceiving a loan or grant under this subsection,  
15 an eligible entity shall—

16           “(i) establish a list of energy effi-  
17 ciency measures that is expected to de-  
18 crease energy use or costs of qualified con-  
19 sumers;

20           “(ii) prepare an implementation plan  
21 for use of the loan funds; and

22           “(iii) provide for appropriate measure-  
23 ment and verification to ensure the effec-  
24 tiveness of the energy efficiency loans  
25 made by the eligible entity and that there



1           is no conflict of interest in the carrying out  
2           of this section.

3           “(B) ~~REVISION OF LIST OF ENERGY EFFI-~~  
4           ~~CIENCY MEASURES.~~—An eligible entity may up-  
5           date the list required under subparagraph  
6           (A)(i) to account for newly available efficiency  
7           technologies, subject to the approval of the Sec-  
8           retary.

9           “(C) ~~EXISTING ENERGY EFFICIENCY PRO-~~  
10          ~~GRAMS.~~—An eligible entity that, on or before  
11          the date of the enactment of this section or  
12          within 60 days after such date, has already es-  
13          tablished an energy efficiency program for  
14          qualified consumers may use an existing list of  
15          energy efficiency measures, implementation  
16          plan, or measurement and verification system of  
17          that program to satisfy the requirements of  
18          subparagraph (A) if the Secretary determines  
19          the list, plans, or systems are consistent with  
20          the purposes of this section.

21          “(3) ~~NO INTEREST.~~—A loan under this sub-  
22          section shall bear no interest.

23          “(4) ~~REPAYMENT.~~—In the case of a loan made  
24          under paragraph (1)—

1           “(A) the term shall not exceed 20 years  
2           from the date the loan is closed; and

3           “(B) except as provided in paragraph (6),  
4           the repayment of each advance shall be amor-  
5           tized for a period of not to exceed 10 years.

6           ~~“(5) AMOUNT OF ADVANCES.—Any advance of~~  
7           loan funds to an eligible entity in any single year  
8           shall not exceed 50 percent of the approved loan  
9           amount.

10          ~~“(6) SPECIAL ADVANCE FOR START-UP ACTIVI-~~  
11          ~~TIES.—~~

12           ~~“(A) IN GENERAL.—In order to assist an~~  
13           eligible entity in defraying appropriate start-up  
14           costs of establishing new programs or modifying  
15           existing programs to carry out subsection (d)  
16           (as determined by the Secretary), the Secretary  
17           shall allow an eligible entity to request a special  
18           advance.

19           ~~“(B) AMOUNT OF SPECIAL ADVANCE.—No~~  
20           eligible entity may receive a special advance  
21           under this paragraph for an amount that is  
22           greater than 4 percent of the loan amount re-  
23           ceived by the eligible entity under paragraph  
24           (1).

1           “(C) REPAYMENT.—Repayment of the spe-  
2           cial advance—

3                   “(i) shall be required not later than  
4                   the end of the 10-year period beginning on  
5                   the date the special advance is made; and

6                   “(ii) at the option of the eligible enti-  
7                   ty, may be deferred to the end of the 10-  
8                   year period.

9           “(7) LIMITATION ON ADVANCES.—An advance  
10           on a loan described in paragraph (1) shall be made  
11           during the initial 10 years of the term of the loan.

12           “(d) LOANS TO QUALIFIED CONSUMERS.—

13                   “(1) TERMS OF LOANS.—Loans made by an eli-  
14                   gible entity to qualified consumers using loan funds  
15                   provided by the Secretary under subsection (c)—

16                           “(A) may bear interest, not to exceed three  
17                           percent, to be used for purposes that include es-  
18                           tablishing a loan loss reserve and to offset per-  
19                           sonnel and program costs of eligible entities to  
20                           provide the loans;

21                           “(B) shall finance energy efficiency meas-  
22                           ures for the purpose of decreasing energy usage  
23                           or costs of the qualified consumer by an  
24                           amount such that a loan term of not more than  
25                           ten years will not pose an undue financial bur-

1 den on the qualified consumer, as determined  
2 by the eligible entity;

3 “(C) shall not be used to fund energy effi-  
4 ciency measures made to personal property un-  
5 less the personal property—

6 “(i) is or becomes attached to real  
7 property as a fixture; or

8 “(ii) is a manufactured home;

9 “(D) shall be repaid through charges  
10 added to the electric bill for the property at  
11 which energy efficiency measures are or will be  
12 implemented, except that this subparagraph  
13 shall not prohibit—

14 “(i) the voluntary prepayment of a  
15 loan by the owner of the property; or

16 “(ii) the use of any additional repay-  
17 ment mechanisms that are—

18 “(I) demonstrated to have appro-  
19 priate risk mitigation features, as de-  
20 termined by the eligible entity; or

21 “(II) required if the qualified  
22 consumer is no longer a customer of  
23 the eligible entity; and

24 “(E) shall require an energy audit by an  
25 eligible entity to determine the impact of pro-

1           posed energy efficiency measures on the energy  
2           costs and consumption of the qualified con-  
3           sumer.

4           “(2) CONTRACTORS.—In addition to any other  
5           qualified general contractor, eligible entities may  
6           serve as general contractors.

7           “(e) CONTRACT FOR MEASUREMENT AND  
8           VERIFICATION, TRAINING, AND TECHNICAL ASSIST-  
9           ANCE.—

10           “(1) IN GENERAL.—Not later than 90 days  
11           after the date of enactment of this section, the Sec-  
12           retary—

13           “(A) shall establish a plan for measure-  
14           ment and verification, training, and technical  
15           assistance for the program; and

16           “(B) may enter into 1 or more contracts  
17           with a qualified entity for the purposes of—

18           “(i) providing measurement and  
19           verification activities; and

20           “(ii) developing a program to provide  
21           technical assistance and training to the  
22           employees of eligible entities to carry out  
23           this section.

24           “(2) USE OF SUBCONTRACTORS AUTHOR-  
25           IZED.—A qualified entity that enters into a contract

1 under paragraph (1) may use subcontractors to as-  
2 sist the qualified entity in performing the contract.

3 ~~“(f) FAST START DEMONSTRATION PROJECTS.—~~

4 ~~“(1) DEMONSTRATION PROJECTS REQUIRED.—~~

5 The Secretary shall enter into agreements with eligi-  
6 ble entities (or groups of eligible entities) that have  
7 energy efficiency programs described in subsection  
8 (e)(2)(C) to establish an energy efficiency loan dem-  
9 onstration projects consistent with the purposes of  
10 this section.

11 ~~“(2) EVALUATION CRITERIA.—In determining~~  
12 ~~which eligible entities to make loans under this sec-~~  
13 ~~tion, the Secretary shall give a preference to entities~~  
14 ~~that—~~

15 ~~“(A) implement approaches to energy au-~~  
16 ~~dit and investments in energy efficiency meas-~~  
17 ~~ures that yield measurable and predictable sav-~~  
18 ~~ings;~~

19 ~~“(B) use measurement and verification~~  
20 ~~processes to determine the effectiveness of en-~~  
21 ~~ergy efficiency loans made by eligible entities;~~

22 ~~“(C) include training for employees of eli-~~  
23 ~~gible entities, including any contractors of such~~  
24 ~~entities, to implement or oversee the activities~~  
25 ~~described in subparagraphs (A) and (B);~~

1           “(D) provide for the participation of a ma-  
2           jority of eligible entities in a State;

3           “(E) reduce the need for generating capac-  
4           ity;

5           “(F) provide efficiency loans to—

6                 “(i) not fewer than 20,000 consumers,  
7                 in the case of a single eligible entity; or

8                 “(ii) not fewer than 80,000 con-  
9                 sumers, in the case of a group of eligible  
10                entities; and

11           “(G) serve areas where a large percentage  
12           of consumers reside—

13                 “(i) in manufactured homes; or

14                 “(ii) in housing units that are more  
15                 than 50 years old.

16           “(3) DEADLINE FOR IMPLEMENTATION.—The  
17           agreements required by paragraph (1) shall be en-  
18           tered into not later than 90 days after the date of  
19           enactment of this section.

20           “(4) EFFECT ON AVAILABILITY OF LOANS NA-  
21           TIONALLY.—Nothing in this subsection shall delay  
22           the availability of loans to eligible entities on a na-  
23           tional basis beginning not later than 180 days after  
24           the date of enactment of this section.

1           “(5) ADDITIONAL DEMONSTRATION PROJECT  
2 AUTHORITY.—

3           “(A) IN GENERAL.—The Secretary may  
4 conduct demonstration projects in addition to  
5 the project required by paragraph (1).

6           “(B) INAPPLICABILITY OF CERTAIN CRI-  
7 TERIA.—The additional demonstration projects  
8 may be carried out without regard to subpara-  
9 graphs (D), (F), or (G) of paragraph (2).

10          “(g) ADDITIONAL AUTHORITY.—The authority pro-  
11 vided in this section is in addition to any authority of the  
12 Secretary to offer loans or grants under any other law.

13          “(h) AUTHORIZATION OF APPROPRIATIONS.—

14           “(1) IN GENERAL.—There is authorized to be  
15 appropriated to the Secretary to carry out this sec-  
16 tion \$405,000,000 for fiscal year 2012, to remain  
17 available until expended.

18           “(2) AMOUNTS FOR LOANS, GRANTS, STAFF-  
19 ING.—Of the amounts appropriated pursuant to the  
20 authorization of appropriations in paragraph (1), the  
21 Secretary shall make available—

22           “(A) \$400,000,000 for the purpose of cov-  
23 ering the cost of loans to eligible entities under  
24 subsection (c) to subsidize gross obligations in



1 the principal amount of not to exceed  
2 \$2,000,000,000; and

3 “(B) \$5,000,000 for measurement and  
4 verification activities under subsection  
5 (e)(1)(A).

6 “(i) EFFECTIVE PERIOD.—Subject to subsection  
7 (h)(1) and except as otherwise provided in this section,  
8 the loans, grants, and other expenditures required to be  
9 made under this section are authorized to be made during  
10 each of fiscal years 2012 through 2016.

11 “(j) REGULATIONS.—

12 “(1) IN GENERAL.—Except as otherwise pro-  
13 vided in this subsection, not later than 180 days  
14 after the date of enactment of this section, the Sec-  
15 retary shall promulgate such regulations as are nec-  
16 essary to implement this section.

17 “(2) PROCEDURE.—The promulgation of the  
18 regulations and administration of this section shall  
19 be made without regard to—

20 “(A) chapter 35 of title 44, United States  
21 Code (commonly known as the ‘Paperwork Re-  
22 duction Act’); and

23 “(B) the Statement of Policy of the Sec-  
24 retary of Agriculture effective July 24, 1971  
25 (36 Fed. Reg. 13804), relating to notices of

1 proposed rulemaking and public participation in  
2 rulemaking.

3 “(3) CONGRESSIONAL REVIEW OF AGENCY  
4 RULEMAKING.—In carrying out this section, the Sec-  
5 retary shall use the authority provided under section  
6 808 of title 5, United States Code.

7 “(4) INTERIM REGULATIONS.—Notwithstanding  
8 paragraphs (1) and (2), to the extent regulations are  
9 necessary to carry out any provision of this section,  
10 the Secretary shall implement such regulations  
11 through the promulgation of an interim rule.”.

12 **SEC. 202. LOAN PROGRAM FOR ENERGY EFFICIENCY UP-**  
13 **GRADES TO EXISTING BUILDINGS.**

14 Title XVII of the Energy Policy Act of 2005 (42  
15 U.S.C. 16511 et seq.) is amended by adding at the end  
16 the following:

17 **“SEC. 1706. BUILDING RETROFIT FINANCING PROGRAM.**

18 “(a) DEFINITIONS.—In this section:

19 “(1) CREDIT SUPPORT.—The term ‘credit sup-  
20 port’ means a guarantee or commitment to issue a  
21 guarantee or other forms of credit enhancement to  
22 ameliorate risks for efficiency obligations.

23 “(2) EFFICIENCY OBLIGATION.—The term ‘effi-  
24 ciency obligation’ means a debt or repayment obliga-

1 tion incurred in connection with financing a project,  
2 or a portfolio of such debt or payment obligations.

3 “(3) PROJECT.—The term ‘project’ means the  
4 installation of efficiency or renewable energy meas-  
5 ures (including metering) in a building (or in mul-  
6 tiple buildings on a given property) that are ex-  
7 pected to increase the energy efficiency of the build-  
8 ing (including fixtures) in accordance with criteria  
9 established by the Secretary.

10 “(b) ELIGIBLE PROJECTS.—

11 “(1) IN GENERAL.—Notwithstanding sections  
12 1703 and 1705, the Secretary may provide credit  
13 support under this section, in accordance with sec-  
14 tion 1702.

15 “(2) INCLUSIONS.—Buildings eligible for credit  
16 support under this section include commercial, in-  
17 dustrial, municipal, university, school, and hospital  
18 facilities that satisfy criteria established by the Sec-  
19 retary.

20 “(c) GUIDELINES.—

21 “(1) IN GENERAL.—Not later than 180 days  
22 after the date of enactment of this section, the Sec-  
23 retary shall establish guidelines for credit support  
24 provided under this section.

1           “(2) REQUIREMENTS.—The guidelines estab-  
2           lished by the Secretary under this subsection shall  
3           include—

4                   “(A) standards for assessing the energy  
5                   savings that could reasonably be expected to re-  
6                   sult from a project;

7                   “(B) examples of financing mechanisms  
8                   (and portfolios of such financing mechanisms)  
9                   that qualify as efficiency obligations;

10                   “(C) the threshold levels of energy savings  
11                   that a project, at the time of issuance of credit  
12                   support, shall be reasonably expected to achieve  
13                   to be eligible for credit support;

14                   “(D) the eligibility criteria the Secretary  
15                   determines to be necessary for making credit  
16                   support available under this section; and

17                   “(E) any lien priority requirements that  
18                   the Secretary determines to be necessary.

19           “(3) EFFICIENCY OBLIGATIONS.—The financing  
20           mechanisms qualified by the Secretary under para-  
21           graph (2)(B) may include—

22                   “(A) loans, including loans made by the  
23                   Federal Financing Bank;

24                   “(B) power purchase agreements, including  
25                   energy efficiency power purchase agreements;

1           “(C) energy services agreements, including  
2 energy performance contracts;

3           “(D) property assessed clean energy bonds  
4 and other tax assessment-based financing mech-  
5 anisms;

6           “(E) aggregate on-meter agreements that  
7 finance retrofit projects; and

8           “(F) any other efficiency obligations the  
9 Secretary determines to be appropriate.

10          “(4) PRIORITIES.—In carrying out this section,  
11 the Secretary shall prioritize—

12           “(A) the maximization of energy savings  
13 with the available credit support funding;

14           “(B) the establishment of a clear applica-  
15 tion and approval process that allows private  
16 building owners, lenders, and investors to rea-  
17 sonably expect to receive credit support for  
18 projects that conform to guidelines; and

19           “(C) the distribution of projects receiving  
20 credit support under this section across States  
21 or geographical regions of the United States.

22          “(5) MINIMUM ENERGY SAVINGS REQUIRE-  
23 MENT.—

24           “(A) IN GENERAL.—In carrying out this  
25 section, the Secretary shall establish an initial

1 minimum energy savings requirement for eligi-  
2 ble projects that, to the maximum extent prac-  
3 ticable, results in the greatest amount of energy  
4 savings on a per project basis.

5 “(B) ADJUSTMENTS.—

6 “(i) IN GENERAL.—Not less than once  
7 each year, the Secretary shall adjust the  
8 minimum energy savings requirement de-  
9 scribed in subparagraph (A) and any other  
10 credit support terms the Secretary deter-  
11 mines to be necessary, including the max-  
12 imum percentage of the efficiency obliga-  
13 tion that may be guaranteed, taking into  
14 account market conditions and the avail-  
15 able funding.

16 “(ii) ADVANCED NOTICE.—If the Sec-  
17 retary adjusts the energy savings require-  
18 ment, the Secretary shall provide at least  
19 90 days advanced public notice.

20 “(d) LIMITATION.—Notwithstanding section 1702(e),  
21 the Secretary shall not issue credit support under this sec-  
22 tion in an amount that exceeds—

23 “(1) 90 percent of the principal amount of the  
24 efficiency obligation that is the subject of the credit  
25 support; or

1           “(2) \$10,000,000 for any single project.

2           “(e) AGGREGATION OF PROJECTS.—To the extent  
3 provided in the guidelines developed in accordance with  
4 subsection (e), the Secretary may issue credit support on  
5 a portfolio, or pool of projects, that are not required to  
6 be geographically contiguous, if each efficiency obligation  
7 in the pool fulfills the requirements described in this sec-  
8 tion.

9           “(f) APPLICATION.—

10           “(1) IN GENERAL.—To be eligible to receive  
11 credit support under this section, the applicant shall  
12 submit to the Secretary an application at such time,  
13 in such manner, and containing such information as  
14 the Secretary determines to be necessary.

15           “(2) CONTENTS.—An application submitted  
16 under this section shall include assurances by the  
17 applicant that—

18           “(A) each contractor carrying out the  
19 project meets minimum experience level criteria,  
20 including local retrofit experience, as deter-  
21 mined by the Secretary;

22           “(B) the project is reasonably expected to  
23 achieve energy savings, as set forth in the appli-  
24 cation using any methodology that meets the  
25 standards described in the program guidelines;

1           “(C) the project meets any technical cri-  
2           teria described in the program guidelines;

3           “(D) the recipient of the credit support  
4           and the parties to the efficiency obligation will  
5           provide the Secretary with—

6                   “(i) any information the Secretary re-  
7                   quests to assess the energy savings that re-  
8                   sult from the project, including historical  
9                   energy usage data and detailed descrip-  
10                  tions of the building work, as described in  
11                  the program guidelines; and

12                  “(ii) permission to access information  
13                  relating to building operations and usage  
14                  for the period described in the program  
15                  guidelines; and

16           “(E) any other assurances that the Sec-  
17           retary determines to be necessary.

18           “(3) DETERMINATION.—Not later than 90 days  
19           after receiving an application, the Secretary shall  
20           make a final determination on the application, which  
21           may include requests for additional information.

22           “(g) FEES.—

23           “(1) IN GENERAL.—In addition to the fees re-  
24           quired by section 1702(h)(1), the Secretary may



1 charge reasonable fees for credit support provided  
2 under this section.

3 ~~“(2) AVAILABILITY.—Fees collected under this~~  
4 ~~section shall be subject to section 1702(h)(2).~~

5 ~~“(h) UNDERWRITING.—The Secretary may delegate~~  
6 ~~the underwriting activities under this section to 1 or more~~  
7 ~~entities that the Secretary determines to be qualified.~~

8 ~~“(i) REPORT.—Not later than 1 year after com-~~  
9 ~~mencement of the program, the Secretary shall submit to~~  
10 ~~the appropriate committees of Congress a report that de-~~  
11 ~~scribes in reasonable detail—~~

12 ~~“(1) the manner in which this section is being~~  
13 ~~carried out;~~

14 ~~“(2) the number and type of projects sup-~~  
15 ~~ported;~~

16 ~~“(3) the types of funding mechanisms used to~~  
17 ~~provide credit support to projects;~~

18 ~~“(4) the energy savings expected to result from~~  
19 ~~projects supported by this section;~~

20 ~~“(5) any tracking efforts the Secretary is using~~  
21 ~~to calculate the actual energy savings produced by~~  
22 ~~the projects; and~~

23 ~~“(6) any plans to improve the tracking efforts~~  
24 ~~described in paragraph (5).~~

25 ~~“(j) FUNDING.—~~

1           “(1) AUTHORIZATION OF APPROPRIATIONS.—

2           There is authorized to be appropriated to the Sec-  
3           retary to carry out this section \$400,000,000 for the  
4           period of fiscal years 2012 through 2021, to remain  
5           available until expended.

6           “(2) ADMINISTRATIVE COSTS.—Not more than  
7           1 percent of any amounts made available to the Sec-  
8           retary under paragraph (1) may be used by the Sec-  
9           retary for administrative costs incurred in carrying  
10          out this section.”.

11 **TITLE III—INDUSTRIAL EFFI-**  
12 **CIENCY AND COMPETITIVE-**  
13 **NESS**

14 **Subtitle A—Manufacturing Energy**  
15 **Efficiency**

16 **SEC. 301. STATE PARTNERSHIP INDUSTRIAL ENERGY EFFI-**  
17 **CIENCY REVOLVING LOAN PROGRAM.**

18           Section 399A of the Energy Policy and Conservation  
19 Act (42 U.S.C. 6371h–1) is amended—

20           (1) in the section heading, by inserting “**AND**  
21 **INDUSTRY**” before the period at the end;

22           (2) by redesignating subsections (h) and (i) as  
23 subsections (i) and (j), respectively; and

24           (3) by inserting after subsection (g) the fol-  
25           lowing:

1       “(h) STATE PARTNERSHIP INDUSTRIAL ENERGY EF-  
2 FICIENCY REVOLVING LOAN PROGRAM.—

3           “(1) IN GENERAL.—The Secretary shall carry  
4 out a program under which the Secretary shall pro-  
5 vide grants to eligible lenders to pay the Federal  
6 share of creating a revolving loan program under  
7 which loans are provided to commercial and indus-  
8 trial manufacturers to implement commercially avail-  
9 able technologies or processes that significantly—

10           “(A) reduce systems energy intensity, in-  
11 cluding the use of energy-intensive feedstocks;  
12 and

13           “(B) improve the industrial competitive-  
14 ness of the United States.

15           “(2) ELIGIBLE LENDERS.—To be eligible to re-  
16 ceive cost-matched Federal funds under this sub-  
17 section, a lender shall—

18           “(A) be a community and economic devel-  
19 opment lender that the Secretary certifies meets  
20 the requirements of this subsection;

21           “(B) lead a partnership that includes par-  
22 ticipation by, at a minimum—

23           “(i) a State government agency; and

24           “(ii) a private financial institution or  
25 other provider of loan capital;

1           “(C) submit an application to the Sec-  
2           retary, and receive the approval of the Sec-  
3           retary, for cost-matched Federal funds to carry  
4           out a loan program described in paragraph (1);  
5           and

6           “(D) ensure that non-Federal funds are  
7           provided to match, on at least a dollar-for-dol-  
8           lar basis, the amount of Federal funds that are  
9           provided to carry out a revolving loan program  
10          described in paragraph (1).

11          “(3) AWARD.—The amount of cost-matched  
12          Federal funds provided to an eligible lender shall not  
13          exceed \$100,000,000 for any fiscal year.

14          “(4) RECAPTURE OF AWARDS.—

15                 “(A) IN GENERAL.—An eligible lender that  
16                 receives an award under paragraph (1) shall be  
17                 required to repay to the Secretary an amount  
18                 of cost-match Federal funds, as determined by  
19                 the Secretary under subparagraph (B), if the  
20                 eligible lender is unable or unwilling to operate  
21                 a program described in this subsection for a pe-  
22                 riod of not less than 10 years beginning on the  
23                 date on which the eligible lender first receives  
24                 funds made available through the award.

1           “(B) DETERMINATION BY SECRETARY.—

2           The Secretary shall determine the amount of  
3           cost-match Federal funds that an eligible lender  
4           shall be required to repay to the Secretary  
5           under subparagraph (A) based on the consider-  
6           ation by the Secretary of—

7                   “(i) the amount of non-Federal funds  
8                   matched by the eligible lender;

9                   “(ii) the amount of loan losses in-  
10                  curred by the revolving loan program de-  
11                  scribed in paragraph (1); and

12                  “(iii) any other appropriate factor, as  
13                  determined by the Secretary.

14           “(C) USE OF RECAPTURED COST-MATCH  
15           FEDERAL FUNDS.—The Secretary may dis-  
16           tribute to eligible lenders under this subsection  
17           each amount received by the Secretary under  
18           this paragraph.

19           “(5) ELIGIBLE PROJECTS.—A program for  
20           which cost-matched Federal funds are provided  
21           under this subsection shall be designed to accelerate  
22           the implementation of industrial and commercial ap-  
23           plications of technologies or processes (including ap-  
24           plications or technologies that use sensors, meters,  
25           information networks, controls, and drives or that

1 have been installed pursuant to an energy savings  
2 performance contract) that—

3 “(A) improve energy efficiency, power fac-  
4 tor, or load management;

5 “(B) enhance the industrial competitive-  
6 ness of the United States; and

7 “(C) achieve such other goals as the Sec-  
8 retary determines to be appropriate.

9 “(6) EVALUATION.—The Secretary shall evalu-  
10 ate applications for cost-matched Federal funds  
11 under this subsection on the basis of—

12 “(A) the description of the program to be  
13 carried out with the cost-matched Federal  
14 funds;

15 “(B) the commitment to provide non-Fed-  
16 eral funds in accordance with paragraph  
17 (2)(D);

18 “(C) program sustainability over a 10-year  
19 period;

20 “(D) the capability of the applicant;

21 “(E) the quantity of energy savings or en-  
22 ergy feedstock minimization;

23 “(F) the advancement of the goal under  
24 this Act of 25-percent energy avoidance;

1           “(G) the ability to fund energy efficient  
2           projects not later than 120 days after the date  
3           of the grant award; and

4           “(H) such other factors as the Secretary  
5           determines appropriate.

6           “(7) AUTHORIZATION OF APPROPRIATIONS.—

7           There is authorized to be appropriated to carry out  
8           this subsection \$700,000,000 for the period of fiscal  
9           years 2012 through 2021, to remain available until  
10          expended.”.

11 **SEC. 302. COORDINATION OF RESEARCH AND DEVELOP-**  
12 **MENT OF ENERGY EFFICIENT TECH-**  
13 **NOLOGIES FOR INDUSTRY.**

14          (a) IN GENERAL.—As part of the research and devel-  
15          opment activities of the Industrial Technologies Program  
16          of the Department of Energy, the Secretary shall estab-  
17          lish, as appropriate, collaborative research and develop-  
18          ment partnerships with other programs within the Office  
19          of Energy Efficiency and Renewable Energy (including the  
20          Building Technologies Program), the Office of Electricity  
21          Delivery and Energy Reliability, and the Office of Science  
22          that—

23                 (1) leverage the research and development ex-  
24                 pertise of those programs to promote early stage en-  
25                 ergy efficiency technology development;





1           (4) food processing;

2           (5) metal casting;

3           (6) glass;

4           (7) chemicals;

5           (8) petroleum refining;

6           (9) cement;

7           (10) information and communication tech-  
8 nologies; and

9           (11) other industries that (as determined by the  
10 Secretary)—

11                   (A) use large quantities of energy;

12                   (B) emit large quantities of greenhouse  
13 gases; or

14                   (C) use a rapidly increasing quantity of en-  
15 ergy.

16       (b) REPORT.—Not later than 1 year after the date  
17 of enactment of this Act, the Secretary shall publish a re-  
18 port, in collaboration with affected energy-intensive indus-  
19 tries, based on the assessment conducted under subsection  
20 (a), that contains—

21                   (1) a detailed inventory describing the cost, en-  
22 ergy, and greenhouse gas emission savings of each  
23 technology described in subsection (a);

24                   (2) for each technology, the total cost, energy,  
25 and greenhouse gas emissions savings if the tech-

1 nology is implemented throughout the industry of  
2 the United States;

3 ~~(3)~~ for each industry, an assessment of total  
4 possible cost, energy, and greenhouse gas emissions  
5 savings possible if state-of-the art, cost-competitive,  
6 commercial energy efficiency technologies were  
7 adopted;

8 ~~(4)~~ for each industry, a comparison to the Eu-  
9 ropean Union, Japan, and other appropriate coun-  
10 tries of energy efficiency technology adoption rates,  
11 as determined by the Secretary, including an exam-  
12 ination of the policy structures in those countries  
13 that promote investments in energy efficiency tech-  
14 nologies;

15 ~~(5)~~ recommendations on how to create jobs in  
16 the United States through private sector collabora-  
17 tion of energy service providers and energy-intensive  
18 industries; and

19 ~~(6)~~ an assessment of energy savings available  
20 from increased use of recycled material in energy-in-  
21 tensive manufacturing processes.

22 **SEC. 304. FUTURE OF INDUSTRY PROGRAM.**

23 (a) IN GENERAL.—Section 452 of the Energy Inde-  
24 pendence and Security Act of 2007 (42 U.S.C. 17111) is

1 amended by striking the section heading and inserting the  
2 following: “**FUTURE OF INDUSTRY PROGRAM**”.

3 (b) ~~DEFINITION OF ENERGY SERVICE PROVIDER.~~—

4 Section 452(a) of the Energy Independence and Security  
5 Act of 2007 (42 U.S.C. 17111(a)) is amended—

6 (1) by redesignating paragraphs (3) through  
7 (5) as paragraphs (4) through (6), respectively; and  
8 (2) by inserting after paragraph (3):

9 “(5) ~~ENERGY SERVICE PROVIDER.~~—The term  
10 ‘energy service provider’ means any private company  
11 or similar entity providing technology or services to  
12 improve energy efficiency in an energy-intensive in-  
13 dustry.”.

14 (c) ~~INDUSTRY-SPECIFIC ROAD MAPS.~~—Section  
15 452(c)(2) of the Energy Independence and Security Act  
16 of 2007 (42 U.S.C. 17111(c)(2)) is amended—

17 (1) in subparagraph (E), by striking “and” at  
18 the end;

19 (2) by redesignating subparagraph (F) as sub-  
20 paragraph (G); and

21 (3) by inserting after subparagraph (E) the fol-  
22 lowing:

23 “(F) research to establish (through the In-  
24 dustrial Technologies Program and in collabora-

tion with energy-intensive industries) a road map process under which—

“(i) industry-specific studies are conducted to determine the intensity of energy use, greenhouse gas emissions, and waste and operating costs, by process and sub-process;

“(ii) near-, mid-, and long-term targets of opportunity are established for synergistic improvements in efficiency, sustainability, and resilience; and

“(iii) public-private actionable plans are created to achieve roadmap goals; and”.

(d) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—

(1) IN GENERAL.—Section 452(e) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(e)) is amended—

(A) by redesignating paragraphs (1) through (5) as subparagraphs (A) through (E), respectively, and indenting appropriately;

(B) by striking “The Secretary” and inserting the following:

“(1) IN GENERAL.—The Secretary”;

1           (C) in subparagraph (A) (as redesignated  
2           by subparagraph (A)); by inserting before the  
3           semicolon at the end the following: “, including  
4           assessments of sustainable manufacturing goals  
5           and the implementation of information tech-  
6           nology advancements for supply chain analysis,  
7           logistics, system monitoring, industrial and  
8           manufacturing processes, and other purposes”;  
9           and

10           (D) by adding at the end the following:

11           “(2) CENTERS OF EXCELLENCE.—

12           “(A) IN GENERAL.—The Secretary shall  
13           establish a Center of Excellence at up to 10 of  
14           the highest performing industrial research and  
15           assessment centers, as determined by the Sec-  
16           retary.

17           “(B) DUTIES.—A Center of Excellence  
18           shall coordinate with and advise the industrial  
19           research and assessment centers located in the  
20           region of the Center of Excellence.

21           “(C) FUNDING.—Subject to the availability  
22           of appropriations, of the funds made available  
23           under subsection (f), the Secretary shall use to  
24           support each Center of Excellence not less than

1           \$500,000 for fiscal year 2012 and each fiscal  
2           year thereafter, as determined by the Secretary.

3           “(3) EXPANSION OF CENTERS.—The Secretary  
4           shall provide funding to establish additional indus-  
5           trial research and assessment centers at institutions  
6           of higher education that do not have industrial re-  
7           search and assessment centers established under  
8           paragraph (1), taking into account the size of, and  
9           potential energy efficiency savings for, the manufac-  
10          turing base within the region of the proposed center.

11          “(4) COORDINATION.—

12                 “(A) IN GENERAL.—To increase the value  
13                 and capabilities of the industrial research and  
14                 assessment centers, the centers shall—

15                         “(i) coordinate with Manufacturing  
16                         Extension Partnership Centers of the Na-  
17                         tional Institute of Standards and Tech-  
18                         nology;

19                         “(ii) coordinate with the Building  
20                         Technologies Program of the Department  
21                         of Energy to provide building assessment  
22                         services to manufacturers;

23                         “(iii) increase partnerships with the  
24                         National Laboratories of the Department  
25                         of Energy to leverage the expertise and

1 technologies of the National Laboratories  
2 for national industrial and manufacturing  
3 needs;

4 “(iv) increase partnerships with en-  
5 ergy service providers to leverage private  
6 sector expertise and accelerate deployment  
7 of new and existing technologies and proc-  
8 esses for energy efficiency, power factor,  
9 and load management;

10 “(v) identify opportunities for reduc-  
11 ing greenhouse gas emissions; and

12 “(vi) promote sustainable manufac-  
13 turing practices for small- and medium-  
14 sized manufacturers.

15 “(5) OUTREACH.—The Secretary shall provide  
16 funding for—

17 “(A) outreach activities by the industrial  
18 research and assessment centers to inform  
19 small- and medium-sized manufacturers of the  
20 information, technologies, and services avail-  
21 able; and

22 “(B) a full-time equivalent employee at  
23 each center of excellence whose primary mission  
24 shall be to coordinate and leverage the efforts  
25 of the center with—

- 1                   “(i) Federal and State efforts;
- 2                   “(ii) the efforts of utilities and energy
- 3                   service providers;
- 4                   “(iii) the efforts of regional energy ef-
- 5                   ficiency organizations; and
- 6                   “(iv) the efforts of other centers in
- 7                   the region of the center of excellence.

8                   “(6) WORKFORCE TRAINING.—

9                   “(A) IN GENERAL.—The Secretary shall

10                  pay the Federal share of associated internship

11                  programs under which students work with or

12                  for industries, manufacturers, and energy serv-

13                  ice providers to implement the recommendations

14                  of industrial research and assessment centers.

15                  “(B) FEDERAL SHARE.—The Federal

16                  share of the cost of carrying out internship pro-

17                  grams described in subparagraph (A) shall be

18                  50 percent.

19                  “(C) FUNDING.—Subject to the availability

20                  of appropriations, of the funds made available

21                  under subsection (f), the Secretary shall use to

22                  carry out this paragraph not less than

23                  \$5,000,000 for fiscal year 2012 and each fiscal

24                  year thereafter.



1           “(7) SMALL BUSINESS LOANS.—The Adminis-  
2           trator of the Small Business Administration shall, to  
3           the maximum practicable, expedite consideration of  
4           applications from eligible small business concerns for  
5           loans under the Small Business Act (15 U.S.C. 631  
6           et seq.) to implement recommendations of industrial  
7           research and assessment centers established under  
8           paragraph (1).”.

9           (c) AUTHORIZATION OF APPROPRIATIONS.—Section  
10          452(f) of the Energy Independence and Security Act of  
11          2007 (42 U.S.C. 17111(f)) is amended—

12                 (1) in paragraph (1)—

13                         (A) in subparagraph (C), by striking  
14                         “\$196,000,000” and inserting “\$216,000,000”;

15                         (B) in subparagraph (D), by striking  
16                         “\$202,000,000” and inserting “\$232,000,000”;

17                         and

18                         (C) in subparagraph (E), by striking  
19                         “\$208,000,000” and inserting “\$248,000,000”;

20                         and

21                         (2) by adding at the end the following:

22                         “(4) INDUSTRIAL RESEARCH AND ASSESSMENT  
23                         CENTERS.—Of the amounts made available under  
24                         paragraph (1), the Secretary shall use to provide

1 funding to industrial research and assessment cen-  
 2 ters under subsection (e) not less than—

3 “(A) \$20,000,000 for fiscal year 2012;

4 “(B) \$30,000,000 for fiscal year 2013; and

5 “(C) \$40,000,000 for fiscal year 2014 and  
 6 each fiscal year thereafter.”.

7 **SEC. 305. SUSTAINABLE MANUFACTURING INITIATIVE.**

8 (a) IN GENERAL.—Part E of title III of the Energy  
 9 Policy and Conservation Act (42 U.S.C. 6341) is amended  
 10 by adding at the end the following:

11 **“SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.**

12 “(a) IN GENERAL.—As part of the Industrial Tech-  
 13 nologies Program of the Department of Energy, the Sec-  
 14 retary shall carry out a sustainable manufacturing initia-  
 15 tive under which the Secretary, on the request of a manu-  
 16 facturer, shall conduct onsite technical assessments to  
 17 identify opportunities for—

18 “(1) maximizing the energy efficiency of indus-  
 19 trial processes and cross-cutting systems;

20 “(2) preventing pollution and minimizing waste;

21 “(3) improving efficient use of water in manu-  
 22 facturing processes;

23 “(4) conserving natural resources; and

24 “(5) achieving such other goals as the Secretary  
 25 determines to be appropriate.

1       “(b) COORDINATION.—The Secretary shall carry out  
2 the initiative in coordination with the private sector and  
3 appropriate agencies, including the National Institute of  
4 Standards and Technology to accelerate adoption of new  
5 and existing technologies or processes that improve energy  
6 efficiency.

7       “(c) RESEARCH AND DEVELOPMENT PROGRAM FOR  
8 SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECH-  
9 NOLOGIES AND PROCESSES.—As part of the Industrial  
10 Technologies Program of the Department of Energy, the  
11 Secretary shall carry out a joint industry-government  
12 partnership program to research, develop, and dem-  
13 onstrate new sustainable manufacturing and industrial  
14 technologies and processes that maximize the energy effi-  
15 ciency of industrial systems, reduce pollution, and con-  
16 serve natural resources.

17       “(d) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated such sums as are nec-  
19 essary to carry out this section.”.

20       (b) TABLE OF CONTENTS.—The table of contents of  
21 the Energy Policy and Conservation Act (42 U.S.C. pre-  
22 6201) is amended by adding at the end of the items relat-  
23 ing to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

1 **SEC. 306. STUDY OF ADVANCED ENERGY TECHNOLOGY**  
2 **MANUFACTURING CAPABILITIES IN THE**  
3 **UNITED STATES.**

4 (a) IN GENERAL.—Not later than 60 days after the  
5 date of enactment of this Act, the Secretary shall enter  
6 into an arrangement with the National Academy of  
7 Sciences under which the Academy shall conduct a study  
8 of the development of advanced manufacturing capabilities  
9 for various energy technologies, including—

10 (1) an assessment of the manufacturing supply  
11 chains of established and emerging industries;

12 (2) an analysis of—

13 (A) the manner in which supply chains  
14 have changed over the 25-year period ending on  
15 the date of enactment of this Act;

16 (B) current trends in supply chains; and

17 (C) the energy intensity of each part of the  
18 supply chain and opportunities for improve-  
19 ment;

20 (3) for each technology or manufacturing sec-  
21 tor, an analysis of which sections of the supply chain  
22 are critical for the United States to retain or develop  
23 to be competitive in the manufacturing of the tech-  
24 nology;

1           (4) an assessment of which emerging energy  
2 technologies the United States should focus on to  
3 create or enhance manufacturing capabilities; and

4           (5) recommendations on leveraging the exper-  
5 tise of energy efficiency and renewable energy user  
6 facilities so that best materials and manufacturing  
7 practices are designed and implemented.

8       (b) REPORT.—Not later than 2 years after the date  
9 on which the Secretary enters into the agreement with the  
10 Academy described in subsection (a), the Academy shall  
11 submit to the Committee on Energy and Natural Re-  
12 sources of the Senate, the Committee on Energy and Com-  
13 merce of the House of Representatives, and the Secretary  
14 a report describing the results of the study required under  
15 this section, including any findings and recommendations.

16 **SEC. 307. INDUSTRIAL TECHNOLOGIES STEERING COM-**  
17 **MITTEE.**

18       The Secretary shall establish an advisory steering  
19 committee that includes national trade associations rep-  
20 resenting energy-intensive industries or energy service  
21 providers to provide recommendations to the Secretary on  
22 planning and implementation of the Industrial Tech-  
23 nologies Program of the Department of Energy.

1 **SEC. 308. AUTHORIZATION OF APPROPRIATIONS.**

2 There are authorized to be appropriated to the Sec-  
3 retary such sums as are necessary to carry out this sub-  
4 title.

5 **Subtitle B—Supply Star**

6 **SEC. 311. SUPPLY STAR.**

7 Part B of title III of the Energy Policy and Conserva-  
8 tion Act (42 U.S.C. 6291) is amended by inserting after  
9 section 324B (as added by section 118(a)) the following:

10 **“SEC. 324C. SUPPLY STAR PROGRAM.**

11 “(a) IN GENERAL.—There is established within the  
12 Department of Energy a Supply Star program to identify  
13 and promote practices, recognize companies, and, as ap-  
14 propriate, recognize products that use highly efficient sup-  
15 ply chains in a manner that conserves energy, water, and  
16 other resources.

17 “(b) COORDINATION.—In carrying out the program  
18 described in subsection (a), the Secretary shall—

19 “(1) consult with other appropriate agencies;  
20 and

21 “(2) coordinate efforts with the Energy Star  
22 program established under section 324A.

23 “(c) DUTIES.—In carrying out the Supply Star pro-  
24 gram described in subsection (a), the Secretary shall—

25 “(1) promote practices, recognize companies,  
26 and, as appropriate, recognize products that comply

1 with the Supply Star program as the preferred prac-  
2 tices, companies, and products in the marketplace  
3 for maximizing supply chain efficiency;

4 “(2) work to enhance industry and public  
5 awareness of the Supply Star program;

6 “(3) collect and disseminate data on supply  
7 chain energy resource consumption;

8 “(4) develop and disseminate metrics, proe-  
9 cesses, and analytical tools (including software) for  
10 evaluating supply chain energy resource use;

11 “(5) develop guidance at the sector level for im-  
12 proving supply chain efficiency;

13 “(6) work with domestic and international orga-  
14 nizations to harmonize approaches to analyzing sup-  
15 ply chain efficiency, including the development of a  
16 consistent set of tools, templates, calculators, and  
17 databases; and

18 “(7) work with industry, including small busi-  
19 nesses, to improve supply chain efficiency through  
20 activities that include—

21 “(A) developing and sharing best practices;

22 and

23 “(B) providing opportunities to benchmark  
24 supply chain efficiency.

1       “(d) EVALUATION.—In any evaluation of supply  
2 chain efficiency carried out by the Secretary with respect  
3 to a specific product, the Secretary shall consider energy  
4 consumption and resource use throughout the entire  
5 lifecycle of a product, including production, transport,  
6 packaging, use, and disposal.

7       “(e) GRANTS AND INCENTIVES.—

8           “(1) IN GENERAL.—The Secretary may award  
9 grants or other forms of incentives on a competitive  
10 basis to eligible entities, as determined by the Sec-  
11 retary, for the purposes of—

12           “(A) studying supply chain energy resource  
13 efficiency; and

14           “(B) demonstrating and achieving reduc-  
15 tions in the energy resource consumption of  
16 commercial products through changes and im-  
17 provements to the production supply and dis-  
18 tribution chain of the products.

19           “(2) USE OF INFORMATION.—Any information  
20 or data generated as a result of the grants or incen-  
21 tives described in paragraph (1) shall be used to in-  
22 form the development of the Supply Star Program.

23       “(f) TRAINING.—The Secretary shall use funds to  
24 support professional training programs to develop and



1 communicate methods, practices, and tools for improving  
2 supply chain efficiency.

3 “(g) EFFECT OF IMPACT ON CLIMATE CHANGE.—

4 For purposes of this section, the impact on climate change  
5 shall not be a factor in determining supply chain effi-  
6 ciency.

7 “(h) EFFECT OF OUTSOURCING OF AMERICAN

8 JOBS.—For purposes of this section, the outsourcing of  
9 American jobs in the production of a product shall not  
10 count as a positive factor in determining supply chain effi-  
11 ciency.

12 “(i) AUTHORIZATION OF APPROPRIATIONS.—There

13 are authorized to be appropriated to carry out this section  
14 such sums as are necessary.”

## 15 **Subtitle C—Electric Motor Rebate** 16 **Program**

### 17 **SEC. 321. ENERGY SAVING MOTOR CONTROL REBATE PRO-** 18 **GRAM.**

19 (a) ESTABLISHMENT.—Not later than January 1,  
20 2012, the Secretary of Energy (referred to in this section  
21 as the “Secretary”) shall establish a program to provide  
22 rebates for expenditures made by entities for the purchase  
23 and installation of a new constant speed electric motor  
24 control that reduces motor energy use by not less than  
25 5 percent.

1 (b) REQUIREMENTS.—

2 (1) APPLICATION.—To be eligible to receive a  
3 rebate under this section, an entity shall submit to  
4 the Secretary an application in such form, at such  
5 time, and containing such information as the Sec-  
6 retary may require, including—

7 (A) demonstrated evidence that the entity  
8 purchased a constant speed electric motor con-  
9 trol that reduces motor energy use by not less  
10 than 5 percent; and

11 (B) the physical nameplate of the installed  
12 motor of the entity to which the energy saving  
13 motor control is attached.

14 (2) AUTHORIZED AMOUNT OF REBATE.—The  
15 Secretary may provide to an entity that meets the  
16 requirements of paragraph (1) a rebate the amount  
17 of which shall be equal to the product obtained by  
18 multiplying—

19 (A) the nameplate horsepower of the elec-  
20 tric motor to which the energy saving motor  
21 control is attached; and

22 (B) \$25.

23 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
24 authorized to be appropriated to carry out this section

1 \$5,000,000 for each of fiscal years 2012 through 2016,  
2 to remain available until expended.

3 **TITLE IV—FEDERAL AGENCY**  
4 **ENERGY EFFICIENCY**

5 **SEC. 401. ADOPTION OF PERSONAL COMPUTER POWER**  
6 **SAVINGS TECHNIQUES BY FEDERAL AGEN-**  
7 **CIES.**

8 (a) **IN GENERAL.**—Not later than 180 days after the  
9 date of enactment of this Act, the Secretary of Energy,  
10 in consultation with the Secretary of Defense, the Sec-  
11 retary of Veterans Affairs, and the Administrator of Gen-  
12 eral Services, shall issue guidance for Federal agencies to  
13 employ advanced tools allowing energy savings through  
14 the use of computer hardware, energy efficiency software,  
15 and power management tools.

16 (b) **REPORTS ON PLANS AND SAVINGS.**—Not later  
17 than 90 days after the date of the issuance of the guidance  
18 under subsection (a), each Federal agency shall submit to  
19 the Secretary of Energy a report that describes—

20 (1) the plan of the agency for implementing the  
21 guidance within the agency; and

22 (2) estimated energy and financial savings from  
23 employing the tools described in subsection (a).

1 **SEC. 402. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.**

2 Section 3307 of title 40, United States Code, is  
3 amended—

4 (1) by redesignating subsections (d) through (h)  
5 as subsections (e) through (i), respectively; and

6 (2) by inserting after subsection (e) the fol-  
7 lowing:

8 “(d) AVAILABILITY OF FUNDS FOR DESIGN UP-  
9 DATES.—

10 “(1) IN GENERAL.—Subject to paragraph (2),  
11 for any project for which congressional approval is  
12 received under subsection (a) and for which the de-  
13 sign has been substantially completed but construc-  
14 tion has not begun, the Administrator of General  
15 Services may use appropriated funds to update the  
16 project design to meet applicable Federal building  
17 energy efficiency standards established under section  
18 305 of the Energy Conservation and Production Act  
19 (42 U.S.C. 6834) and other requirements estab-  
20 lished under section 3312.

21 “(2) LIMITATION.—The use of funds under  
22 paragraph (1) shall not exceed 125 percent of the  
23 estimated energy or other cost savings associated  
24 with the updates as determined by a life-cycle cost  
25 analysis under section 544 of the National Energy  
26 Conservation Policy Act (42 U.S.C. 8254).”.

1 **SEC. 403. BEST PRACTICES FOR ADVANCED METERING.**

2 Section 543(e) of the National Energy Conservation  
3 Policy Act (42 U.S.C. 8253(e)) is amended by striking  
4 paragraph (3) and inserting the following:

5 “(3) PLAN.—

6 “(A) IN GENERAL.—Not later than 180  
7 days after the date on which guidelines are es-  
8 tablished under paragraph (2), in a report sub-  
9 mitted by the agency under section 548(a), each  
10 agency shall submit to the Secretary a plan de-  
11 scribing the manner in which the agency will  
12 implement the requirements of paragraph (1),  
13 including—

14 “(i) how the agency will designate  
15 personnel primarily responsible for achiev-  
16 ing the requirements; and

17 “(ii) a demonstration by the agency,  
18 complete with documentation, of any find-  
19 ing that advanced meters or advanced me-  
20 tering devices (as those terms are used in  
21 paragraph (1)), are not practicable.

22 “(B) UPDATES.—Reports submitted under  
23 subparagraph (A) shall be updated annually.

24 “(4) BEST PRACTICES REPORT.—

25 “(A) IN GENERAL.—Not later than 180  
26 days after the date of enactment of the Energy

1 Savings and Industrial Competitiveness Act of  
2 2011, the Secretary of Energy, in consultation  
3 with the Secretary of Defense and the Adminis-  
4 trator of General Services, shall develop, and  
5 issue a report on, best practices for the use of  
6 advanced metering of energy use in Federal fa-  
7 cilities, buildings, and equipment by Federal  
8 agencies.

9 “(B) UPDATING.—The report described  
10 under subparagraph (A) shall be updated annu-  
11 ally.

12 “(C) COMPONENTS.—The report shall in-  
13 clude, at a minimum—

14 “(i) summaries and analysis of the re-  
15 ports by agencies under paragraph (3);

16 “(ii) recommendations on standard re-  
17 quirements or guidelines for automated en-  
18 ergy management systems, including—

19 “(I) potential common commu-  
20 nications standards to allow data  
21 sharing and reporting;

22 “(II) means of facilitating contin-  
23 uous commissioning of buildings and  
24 evidence-based maintenance of build-  
25 ings and building systems; and

1                   “~~(III)~~ standards for sufficient  
2                   levels of security and protection  
3                   against cyber threats to ensure sys-  
4                   tems cannot be controlled by unau-  
5                   thorized persons; and

6                   “~~(iii)~~ an analysis of—

7                   “~~(I)~~ the types of advanced meter-  
8                   ing and monitoring systems being pi-  
9                   loted, tested, or installed in Federal  
10                  buildings; and

11                  “~~(II)~~ existing techniques used  
12                  within the private sector or other non-  
13                  Federal government buildings.”.

14 **SEC. 404. FEDERAL ENERGY MANAGEMENT AND DATA COL-**  
15 **LECTION STANDARD.**

16                  Section ~~543~~ of the National Energy Conservation  
17 Policy Act (~~42 U.S.C. 8253~~) is amended—

18                  ~~(1)~~ by redesignating the second subsection ~~(f)~~  
19                  (as added by section ~~434(a)~~ of Public Law ~~110-140~~  
20                  (~~121 Stat. 1614~~)) as subsection ~~(g)~~; and

21                  ~~(2)~~ in subsection ~~(f)(7)~~, by striking subpara-  
22                  graph ~~(A)~~ and inserting the following:

23                  “~~(A)~~ IN GENERAL.—For each facility that  
24                  meets the criteria established by the Secretary  
25                  under paragraph ~~(2)(B)~~, the energy manager

1 shall use the web-based tracking system under  
2 subparagraph (B)—

3 “(i) to certify compliance with the re-  
4 quirements for—

5 “(I) energy and water evalua-  
6 tions under paragraph (3);

7 “(II) implementation of identified  
8 energy and water measures under  
9 paragraph (4); and

10 “(III) follow-up on implemented  
11 measures under paragraph (5); and

12 “(ii) to publish energy consumption  
13 data on an individual facility basis.”.

14 **SEC. 405. ELECTRIC VEHICLE CHARGING INFRASTRUC-**  
15 **TURE.**

16 Section 804(4) of the National Energy Conservation  
17 Policy Act (42 U.S.C. 8287e(4)) is amended—

18 (1) in subparagraph (A), by striking “or” after  
19 the semicolon;

20 (2) in subparagraph (B), by striking the period  
21 at the end and inserting “; or”; and

22 (3) by adding at the end the following:

23 “(C) a measure to support the use of elec-  
24 tric vehicles or the fueling or charging infra-  
25 structure necessary for electric vehicles.”.



1 **SEC. 406. BROADENING DEFINITION OF RENEWABLE EN-**  
 2 **ERGY TO INCLUDE THERMAL.**

3 Section 203 of the Energy Policy Act of 2005 (42  
 4 U.S.C. 15852) is amended—

5 (1) in subsection (a), in the matter preceding  
 6 paragraph (1), by striking “electric”;

7 (2) by redesignating subsection (d) as sub-  
 8 section (e); and

9 (3) by inserting after subsection (e) the fol-  
 10 lowing:

11 “(d) SEPARATE CALCULATION.—Renewable energy  
 12 produced at a Federal facility, on Federal land, or on In-  
 13 dian land (as defined in section 2601 of the Energy Policy  
 14 Act of 1992 (25 U.S.C. 3501))—

15 “(1) shall be calculated separately from renew-  
 16 able energy used; and

17 “(2) may be used individually or in combination  
 18 to comply with subsection (a).”.

19 **SEC. 407. STUDY ON FEDERAL DATA CENTER CONSOLIDA-**  
 20 **TION.**

21 (a) IN GENERAL.—The Secretary of Energy shall  
 22 conduct a study on the feasibility of a government-wide  
 23 data center consolidation, with an overall Federal target  
 24 of a minimum of 800 Federal data center closures by Oc-  
 25 tober 1, 2015.

1 (b) COORDINATION.—In conducting the study, the  
2 Secretary shall coordinate with Federal data center pro-  
3 gram managers, facilities managers, and sustainability of-  
4 ficers.

5 (c) REPORT.—Not later than 1 year after the date  
6 of enactment of this Act, the Secretary shall submit to  
7 Congress a report that describes the results of the study,  
8 including a description of agency best practices in data  
9 center consolidation.

## 10 **TITLE V—MISCELLANEOUS**

### 11 **SEC. 501. BUDGETARY EFFECTS.**

12 The budgetary effects of this Act, for the purpose of  
13 complying with the Statutory Pay-As-You-Go Act of 2010,  
14 shall be determined by reference to the latest statement  
15 titled “Budgetary Effects of PAYGO Legislation” for this  
16 Act, submitted for printing in the Congressional Record  
17 by the Chairman of the Senate Budget Committee, pro-  
18 vided that such statement has been submitted prior to the  
19 vote on passage.

### 20 **SEC. 502. ADVANCE APPROPRIATIONS REQUIRED.**

21 The authorization of amounts under this Act and the  
22 amendments made by this Act shall be effective for any  
23 fiscal year only to the extent and in the amount provided  
24 in advance in appropriations Acts.

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) *SHORT TITLE.*—*This Act may be cited as the “En-*  
 3 *ergy Savings and Industrial Competitiveness Act of 2011”.*

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

*Sec. 1. Short title; table of contents.*

*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.*

*TITLE II—BUILDING EFFICIENCY FINANCE*

*Sec. 201. Loan program for energy efficiency upgrades to existing buildings.*

*TITLE III—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS*

*Subtitle A—Manufacturing Energy Efficiency*

*Sec. 301. State partnership industrial energy efficiency revolving loan program.*

*Sec. 302. Coordination of research and development of energy efficient technologies for industry.*

*Sec. 303. Energy efficient technologies assessment.*

*Sec. 304. Future of Industry program.*

*Sec. 305. Sustainable manufacturing initiative.*

*Sec. 306. Study of advanced energy technology manufacturing capabilities in the United States.*

*Sec. 307. Industrial Technologies steering committee.*

*Subtitle B—Supply Star*

*Sec. 311. Supply Star.*

*Subtitle C—Electric Motor Rebate Program*

*Sec. 321. Energy saving motor control rebate program.*

*Subtitle D—Transformer Rebate Program*

*Sec. 331. Energy efficient transformer rebate program.*

*TITLE IV—FEDERAL AGENCY ENERGY EFFICIENCY*

*Sec. 401. Adoption of personal computer power savings techniques by Federal agencies.*

*Sec. 402. Availability of funds for design updates.*

*Sec. 403. Best practices for advanced metering.*

*Sec. 404. Federal energy management and data collection standard.*

*Sec. 405. Electric vehicle charging infrastructure.*  
*Sec. 406. Federal purchase requirement.*  
*Sec. 407. Study on Federal data center consolidation.*

*TITLE V—MISCELLANEOUS*

*Sec. 501. Offsets.*  
*Sec. 502. Budgetary effects.*  
*Sec. 503. Advance appropriations required.*

1                   ***TITLE I—BUILDINGS***  
 2    ***Subtitle A—Building Energy Codes***  
 3    ***SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING***  
 4                   ***CODES.***

5            (a) *IN GENERAL.*—*Section 304 of the Energy Con-*  
 6 *servation and Production Act (42 U.S.C. 6833) is amended*  
 7 *to read as follows:*

8    ***“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-***  
 9                   ***CIENCY CODES.***

10            ***“(a) UPDATING NATIONAL MODEL BUILDING ENERGY***  
 11 ***CODES.—***

12                    ***“(1) IN GENERAL.—The Secretary shall—***

13                            ***“(A) support the development of national***  
 14 ***model building energy codes, including the up-***  
 15 ***dating of ASHRAE and IECC model building***  
 16 ***energy codes and standards;***

17                            ***“(B) encourage and support the adoption of***  
 18 ***building energy codes by States, Indian tribes,***  
 19 ***and, as appropriate, by local governments that***  
 20 ***meet or exceed the national model building en-***

1            *ergy codes, or achieve equivalent or greater en-*  
2            *ergy savings; and*

3            *“(C) support full compliance with the State*  
4            *and local codes.*

5            *“(2) TARGETS.—*

6            *“(A) IN GENERAL.—The Secretary shall*  
7            *support the updating of the national model*  
8            *building energy codes for residential buildings*  
9            *and commercial buildings to enable the achieve-*  
10           *ment of energy savings targets established under*  
11           *subparagraph (B).*

12           *“(B) TARGETS.—*

13           *“(i) IN GENERAL.—The Secretary shall*  
14           *work with State, Indian tribes, local gov-*  
15           *ernments, nationally recognized code and*  
16           *standards developers, and other interested*  
17           *parties to support the updating of national*  
18           *model building energy codes by establishing*  
19           *1 or more aggregate energy savings targets*  
20           *to achieve the purposes of this section.*

21           *“(ii) SEPARATE TARGETS.—The Sec-*  
22           *retary may establish separate targets for*  
23           *commercial and residential buildings.*

24           *“(iii) BASELINES.—The baseline for*  
25           *updating national model codes shall be the*

1            *2009 IECC for residential buildings and*  
2            *ASHRAE Standard 90.1–2010 for commer-*  
3            *cial buildings.*

4            “(iv) *SPECIFIC YEARS.—*

5                    “(I) *IN GENERAL.—Targets for*  
6                    *specific years shall be established and*  
7                    *revised by the Secretary through rule-*  
8                    *making and coordinated with nation-*  
9                    *ally recognized code and standards de-*  
10                   *velopers at a level that—*

11                            “(aa) *is at the maximum*  
12                            *level of energy efficiency that is*  
13                            *technologically feasible and life-*  
14                            *cycle cost effective, while account-*  
15                            *ing for the economic consider-*  
16                            *ations under subparagraph (D);*

17                            “(bb) *is higher than the pre-*  
18                            *ceding target; and*

19                            “(cc) *promotes the achieve-*  
20                            *ment of commercial and residen-*  
21                            *tial high-performance buildings*  
22                            *through high performance energy*  
23                            *efficiency (within the meaning of*  
24                            *section 401 of the Energy Inde-*

1                    *pendence and Security Act of*  
2                    *2007 (42 U.S.C. 17061)).*

3                    “(II)    *INITIAL    TARGETS.—Not*  
4                    *later than 1 year after the date of en-*  
5                    *actment of this clause, the Secretary*  
6                    *shall establish initial targets under this*  
7                    *subparagraph.*

8                    “(III)    *DIFFERENT    TARGET*  
9                    *YEARS.—Subject to subclause (I), prior*  
10                    *to the applicable year, the Secretary*  
11                    *may set a different target year for any*  
12                    *of model codes described in clause (i) if*  
13                    *the Secretary determines that a higher*  
14                    *target cannot be met.*

15                    “(IV)    *SMALL    BUSINESS.—When*  
16                    *establishing targets under this sub-*  
17                    *paragraph through rulemaking, the*  
18                    *Secretary shall ensure compliance with*  
19                    *the Small Business Regulatory En-*  
20                    *forcement Fairness Act of 1996 (5*  
21                    *U.S.C. 601 note; Public Law 104–121).*

22                    “(C)    *APPLIANCE STANDARDS AND OTHER*  
23                    *FACTORS AFFECTING BUILDING ENERGY USE.—*  
24                    *In establishing building code targets under sub-*  
25                    *paragraph (B), the Secretary shall develop and*

1           *adjust the targets in recognition of potential sav-*  
2           *ings and costs relating to—*

3                   “(i) *efficiency gains made in appli-*  
4                   *ances, lighting, windows, insulation, and*  
5                   *building envelope sealing;*

6                   “(ii) *advancement of distributed gen-*  
7                   *eration and on-site renewable power genera-*  
8                   *tion technologies;*

9                   “(iii) *equipment improvements for*  
10                   *heating, cooling, and ventilation systems;*

11                   “(iv) *building management systems*  
12                   *and SmartGrid technologies to reduce en-*  
13                   *ergy use; and*

14                   “(v) *other technologies, practices, and*  
15                   *building systems that the Secretary con-*  
16                   *siders appropriate regarding building plug*  
17                   *load and other energy uses.*

18                   “(D) *ECONOMIC CONSIDERATIONS.—In es-*  
19                   *tablishing and revising building code targets*  
20                   *under subparagraph (B), the Secretary shall con-*  
21                   *sider the economic feasibility of achieving the*  
22                   *proposed targets established under this section*  
23                   *and the potential costs and savings for con-*  
24                   *sumers and building owners, including a return*  
25                   *on investment analysis.*



1           “(3) *TECHNICAL ASSISTANCE TO MODEL CODE-*  
2           *SETTING AND STANDARD DEVELOPMENT ORGANIZA-*  
3           *TIONS.—*

4                   “(A) *IN GENERAL.—The Secretary shall, on*  
5                   *a timely basis, provide technical assistance to*  
6                   *model code-setting and standard development or-*  
7                   *ganizations.*

8                   “(B) *ASSISTANCE.—The assistance shall in-*  
9                   *clude, as requested by the organizations, tech-*  
10                   *nical assistance in—*

11                           “(i) *evaluating code or standards pro-*  
12                           *posals or revisions;*

13                           “(ii) *building energy analysis and de-*  
14                           *sign tools;*

15                           “(iii) *building demonstrations;*

16                           “(iv) *developing definitions of energy*  
17                           *use intensity and building types for use in*  
18                           *model codes and standards or in evaluating*  
19                           *the efficiency impacts of the codes and*  
20                           *standards;*

21                           “(v) *performance-based standards;*

22                           “(vi) *evaluating economic consider-*  
23                           *ations under paragraph (2)(D); and*

24                           “(vii) *developing model codes by In-*  
25                           *dian tribes in accordance with tribal law.*

1           “(C) *AMENDMENT PROPOSALS.*—*The Sec-*  
2           *retary may submit timely code and standard*  
3           *amendment proposals to the model code-setting*  
4           *and standard development organizations, with*  
5           *supporting evidence, sufficient to enable the*  
6           *model building energy codes and standards to*  
7           *meet the targets established under paragraph*  
8           *(2)(B).*

9           “(D) *ANALYSIS METHODOLOGY.*—*The Sec-*  
10           *retary shall make publicly available the entire*  
11           *calculation methodology (including input as-*  
12           *sumptions and data) used by the Secretary to es-*  
13           *timate the energy savings of code or standard*  
14           *proposals and revisions.*

15           “(4) *DETERMINATION AND ESTABLISHMENT.*—

16           “(A) *REVISION OF MODEL BUILDING CODES*  
17           *AND STANDARDS.*—*If the provisions of the IECC*  
18           *or ASHRAE Standard 90.1 regarding building*  
19           *energy use are revised, the Secretary shall make*  
20           *a preliminary determination not later than 90*  
21           *days after the date of the revision, and a final*  
22           *determination not later than 1 year after the*  
23           *date of the revision, on whether the revision*  
24           *will—*

1           “(i) improve energy efficiency in build-  
2           ings compared to the existing national  
3           model building energy code; and

4           “(ii) meet the applicable targets under  
5           paragraph (2)(B).

6           “(B) CODES OR STANDARDS NOT MEETING  
7           TARGETS.—

8           “(i) IN GENERAL.—If the Secretary  
9           makes a preliminary determination under  
10          subparagraph (A)(ii) that a code or stand-  
11          ard does not meet the targets established  
12          under paragraph (2)(B), the Secretary may  
13          at the same time provide the model code or  
14          standard developer with proposed changes  
15          that would result in a model code that meets  
16          the targets and with supporting evidence,  
17          taking into consideration—

18                  “(I) whether the modified code is  
19                  technically feasible and life-cycle cost  
20                  effective;

21                  “(II) available appliances, tech-  
22                  nologies, materials, and construction  
23                  practices; and

24                  “(III) the economic considerations  
25                  under paragraph (2)(D).

1                   “(ii) *INCORPORATION OF CHANGES.*—

2                                 “(I) *IN GENERAL.*—*On receipt of*  
3                                 *the proposed changes, the model code or*  
4                                 *standard developer shall have an addi-*  
5                                 *tional 180 days to incorporate changes*  
6                                 *into the model code or standard.*

7                                 “(II) *FINAL DETERMINATION.*—*A*  
8                                 *final determination under subpara-*  
9                                 *graph (A) shall be on the modified*  
10                                 *model code or standard.*

11                                 “(C) *POSITIVE DETERMINATIONS.*—*If the*  
12                                 *Secretary makes positive final determinations*  
13                                 *under clauses (i) and (ii) of subparagraph (A) or*  
14                                 *under clause (i) of subparagraph (A) if the ap-*  
15                                 *plicable target has not been established, the re-*  
16                                 *vised IECC or ASHRAE Standard 90.1 shall be*  
17                                 *established as the relevant national model build-*  
18                                 *ing energy code.*

19                                 “(D) *ESTABLISHMENT BY SECRETARY.*—

20   “(i) *IN GENERAL.*—*If the Secretary*  
21   *makes a negative final determination under*  
22   *subparagraph (A)(ii), the Secretary shall at*  
23   *the same time establish a modified national*  
24   *model building energy code.*

1           “(ii) *CODES OR STANDARDS NOT UP-*  
2           *DATED.—If the IECC or ASHRAE Stand-*  
3           *ard 90.1 is not revised by a target date*  
4           *under paragraph (2), the Secretary shall,*  
5           *not later than 90 days after the target date,*  
6           *issue a draft of, and not later than 1 year*  
7           *after the target date, establish, a modified*  
8           *national model building energy code.*

9           “(iii) *REQUIREMENTS.—Any national*  
10           *model building energy code established*  
11           *under this subparagraph shall—*

12                   “(I) *meet the targets established*  
13                   *under paragraph (2);*

14                   “(II) *achieve the maximum level*  
15                   *of energy savings that is techno-*  
16                   *logically feasible and life-cycle cost-ef-*  
17                   *fective, while accounting for the eco-*  
18                   *nomical considerations under paragraph*  
19                   *(2)(D);*

20                   “(III) *be based on the latest edi-*  
21                   *tion of the IECC or ASHRAE Stand-*  
22                   *ard 90.1, including any subsequent*  
23                   *amendments, addenda, or additions,*  
24                   *but may also consider other model*  
25                   *codes or standards; and*

1                   “(IV) observe and protect the in-  
2                   tellectual property rights of nationally  
3                   recognized code and standards devel-  
4                   opers.

5                   “(5) ADMINISTRATION.—In carrying out this sec-  
6                   tion, the Secretary shall—

7                   “(A) publish notice of targets, determina-  
8                   tions, and national model building energy codes  
9                   under this section in the Federal Register to pro-  
10                  vide an explanation of and the basis for such ac-  
11                  tions, including any supporting modeling, data,  
12                  assumptions, protocols, and cost-benefit analysis,  
13                  including return on investment; and

14                  “(B) provide an opportunity for public  
15                  comment on targets, determinations, and na-  
16                  tional model building energy codes under this  
17                  section.

18                  “(b) STATE AND INDIAN TRIBE CERTIFICATION OF  
19                  BUILDING ENERGY CODE UPDATES.—

20                  “(1) REVIEW AND UPDATING OF CODES BY EACH  
21                  STATE AND INDIAN TRIBE.—

22                  “(A) IN GENERAL.—Not later than 2 years  
23                  after the date on which a national model build-  
24                  ing energy code is established or revised under  
25                  subsection (a), each State and Indian tribe shall

1           *certify whether or not the State and Indian*  
2           *tribe, respectively, has reviewed and updated the*  
3           *energy provisions of the building code of the*  
4           *State and Indian tribe, respectively.*

5           “(B) *DEMONSTRATION.*—*The certification*  
6           *shall include a demonstration of whether or not*  
7           *the code provisions that are in effect throughout*  
8           *the State and Indian tribe—*

9                   “(i) *meet or exceed the revised model*  
10                   *code; or*

11                   “(ii) *achieve equivalent or greater en-*  
12                   *ergy savings.*

13           “(C) *NO MODEL CODE UPDATE.*—*If the Sec-*  
14           *retary fails to revise a national model building*  
15           *energy code by the date specified in subsection*  
16           *(a)(4), each State and Indian tribe shall, not*  
17           *later than 2 years after the specified date, certify*  
18           *whether or not the State and Indian tribe, re-*  
19           *spectively, has reviewed and updated the energy*  
20           *provisions of the building code of the State and*  
21           *Indian tribe, respectively, to meet or exceed the*  
22           *target in subsection (a)(2).*

23           “(2) *VALIDATION BY SECRETARY.*—*Not later*  
24           *than 90 days after a State or Indian tribe certifi-*  
25           *cation under paragraph (1), the Secretary shall—*

1           “(A) determine whether the code provisions  
2 of the State or Indian tribe, respectively, meet  
3 the criteria specified in paragraph (1); and

4           “(B) if the determination is positive, vali-  
5 date the certification.

6           “(c) IMPROVEMENTS IN COMPLIANCE WITH BUILDING  
7 ENERGY CODES.—

8           “(1) REQUIREMENT.—

9           “(A) IN GENERAL.—Not later than 3 years  
10 after the date of a certification under subsection  
11 (b), each State and Indian tribe shall certify  
12 whether or not the State and Indian tribe, re-  
13 spectively, has—

14           “(i) achieved full compliance under  
15 paragraph (3) with the applicable certified  
16 State and Indian tribe building energy code  
17 or with the associated national model build-  
18 ing energy code; or

19           “(ii) made significant progress under  
20 paragraph (4) toward achieving compliance  
21 with the applicable certified State and In-  
22 dian tribe building energy code or with the  
23 associated national model building energy  
24 code.



1           “(B) *REPEAT CERTIFICATIONS.*—If the  
2           State or Indian tribe certifies progress toward  
3           achieving compliance, the State or Indian tribe  
4           shall repeat the certification until the State or  
5           Indian tribe certifies that the State or Indian  
6           tribe has achieved full compliance, respectively.

7           “(2) *MEASUREMENT OF COMPLIANCE.*—A certifi-  
8           cation under paragraph (1) shall include documenta-  
9           tion of the rate of compliance based on—

10           “(A) *independent inspections of a random*  
11           *sample of the buildings covered by the code in the*  
12           *preceding year; or*

13           “(B) *an alternative method that yields an*  
14           *accurate measure of compliance.*

15           “(3) *ACHIEVEMENT OF COMPLIANCE.*—A State or  
16           Indian tribe shall be considered to achieve full com-  
17           pliance under paragraph (1) if—

18           “(A) *at least 90 percent of building space*  
19           *covered by the code in the preceding year sub-*  
20           *stantially meets all the requirements of the ap-*  
21           *plicable code specified in paragraph (1), or*  
22           *achieves equivalent or greater energy savings*  
23           *level; or*

24           “(B) *the estimated excess energy use of*  
25           *buildings that did not meet the applicable code*

1           *specified in paragraph (1) in the preceding year,*  
2           *compared to a baseline of comparable buildings*  
3           *that meet this code, is not more than 5 percent*  
4           *of the estimated energy use of all buildings cov-*  
5           *ered by this code during the preceding year.*

6           “(4) *SIGNIFICANT PROGRESS TOWARD ACHIEVE-*  
7           *MENT OF COMPLIANCE.—A State or Indian tribe shall*  
8           *be considered to have made significant progress to-*  
9           *ward achieving compliance for purposes of paragraph*  
10          *(1) if the State or Indian tribe—*

11                 “(A) *has developed and is implementing a*  
12                 *plan for achieving compliance during the 8-year-*  
13                 *period beginning on the date of enactment of this*  
14                 *paragraph, including annual targets for compli-*  
15                 *ance and active training and enforcement pro-*  
16                 *grams; and*

17                 “(B) *has met the most recent target under*  
18                 *subparagraph (A).*

19           “(5) *VALIDATION BY SECRETARY.—Not later*  
20           *than 90 days after a State or Indian tribe certifi-*  
21           *cation under paragraph (1), the Secretary shall—*

22                 “(A) *determine whether the State or Indian*  
23                 *tribe has demonstrated meeting the criteria of*  
24                 *this subsection, including accurate measurement*  
25                 *of compliance; and*

1                   “(B) if the determination is positive, vali-  
2                   date the certification.

3                   “(d) STATES OR INDIAN TRIBES THAT DO NOT MEET  
4 TARGETS.—

5                   “(1) REPORTING.—A State or Indian tribe that  
6                   has not made a certification required under sub-  
7                   section (b) or (c) by the applicable deadline shall sub-  
8                   mit to the Secretary a report on—

9                   “(A) the status of the State or Indian tribe  
10                  with respect to meeting the requirements and  
11                  submitting the certification; and

12                  “(B) a plan for meeting the requirements  
13                  and submitting the certification.

14                  “(2) FEDERAL SUPPORT.—Any State or Indian  
15                  tribe for which the Secretary has not accepted a cer-  
16                  tification by a deadline under subsection (b) or (c)  
17                  may be ineligible for Federal support authorized  
18                  under this section for code adoption and compliance  
19                  activities.

20                  “(3) LOCAL GOVERNMENT.—In any State or In-  
21                  dian tribe for which the Secretary has not accepted a  
22                  certification under subsection (b) or (c), a local gov-  
23                  ernment may be eligible for Federal support by meet-  
24                  ing the certification requirements of subsections (b)  
25                  and (c).

1           “(4) *ANNUAL REPORTS BY SECRETARY.*—

2                   “(A) *IN GENERAL.*—*The Secretary shall an-*  
3 *nually submit to Congress, and publish in the*  
4 *Federal Register, a report on—*

5                           “(i) *the status of national model build-*  
6 *ing energy codes;*

7                           “(ii) *the status of code adoption and*  
8 *compliance in the States and Indian tribes;*

9                           “(iii) *implementation of this section;*  
10 *and*

11                           “(iv) *improvements in energy savings*  
12 *over time as result of the targets established*  
13 *under subsection (a)(2)(B).*

14                   “(B) *IMPACTS.*—*The report shall include es-*  
15 *timates of impacts of past action under this sec-*  
16 *tion, and potential impacts of further action,*  
17 *on—*

18                           “(i) *upfront financial and construction*  
19 *costs, cost benefits and returns (using in-*  
20 *vestment analysis), and lifetime energy use*  
21 *for buildings;*

22                           “(ii) *resulting energy costs to individ-*  
23 *uals and businesses; and*

24                           “(iii) *resulting overall annual building*  
25 *ownership and operating costs.*

1       “(e) *TECHNICAL ASSISTANCE TO STATES AND INDIAN*  
2 *TRIBES.*—*The Secretary shall provide technical assistance*  
3 *to States and Indian tribes to implement the requirements*  
4 *of this section, including procedures and technical analysis*  
5 *for States and Indian tribes—*

6               “(1) *to demonstrate that the code provisions of*  
7 *the States and Indian tribes achieve equivalent or*  
8 *greater energy savings than the national model build-*  
9 *ing energy codes;*

10              “(2) *to document the rate of compliance with a*  
11 *building energy code; and*

12              “(3) *to improve and implement State residential*  
13 *and commercial building energy codes or otherwise*  
14 *promote the design and construction of energy effi-*  
15 *cient buildings.*

16       “(f) *AVAILABILITY OF INCENTIVE FUNDING.*—

17              “(1) *IN GENERAL.*—*The Secretary shall provide*  
18 *incentive funding to States and Indian tribes—*

19                   “(A) *to implement the requirements of this*  
20 *section;*

21                   “(B) *to improve and implement residential*  
22 *and commercial building energy codes, including*  
23 *increasing and verifying compliance with the*  
24 *codes and training of State, tribal, and local*

1           *building code officials to implement and enforce*  
2           *the codes; and*

3                   “(C) *to promote building energy efficiency*  
4                   *through the use of the codes.*

5                   “(2) *ADDITIONAL FUNDING.—Additional funding*  
6                   *shall be provided under this subsection for implemen-*  
7                   *tation of a plan to achieve and document full compli-*  
8                   *ance with residential and commercial building energy*  
9                   *codes under subsection (c)—*

10                   “(A) *to a State or Indian tribe for which*  
11                   *the Secretary has accepted a certification under*  
12                   *subsection (b) or (c); and*

13                   “(B) *in a State or Indian tribe that is not*  
14                   *eligible under subparagraph (A), to a local gov-*  
15                   *ernment that is in eligible under this section.*

16                   “(3) *TRAINING.—Of the amounts made available*  
17                   *under this subsection, the State may use amounts re-*  
18                   *quired, but not to exceed \$750,000 for a State, to*  
19                   *train State and local building code officials to imple-*  
20                   *ment and enforce codes described in paragraph (2).*

21                   “(4) *LOCAL GOVERNMENTS.—States may share*  
22                   *grants under this subsection with local governments*  
23                   *that implement and enforce the codes.*

24                   “(g) *STRETCH CODES AND ADVANCED STANDARDS.—*

1           “(1) *IN GENERAL.*—*The Secretary shall provide*  
2           *technical and financial support for the development of*  
3           *stretch codes and advanced standards for residential*  
4           *and commercial buildings for use as—*

5                   “(A) *an option for adoption as a building*  
6                   *energy code by local, tribal, or State govern-*  
7                   *ments; and*

8                   “(B) *guidelines for energy-efficient building*  
9                   *design.*

10           “(2) *TARGETS.*—*The stretch codes and advanced*  
11           *standards shall be designed—*

12                   “(A) *to achieve substantial energy savings*  
13                   *compared to the national model building energy*  
14                   *codes; and*

15                   “(B) *to meet targets under subsection*  
16                   *(a)(2), if available, at least 3 to 6 years in ad-*  
17                   *vance of the target years.*

18           “(h) *STUDIES.*—*The Secretary, in consultation with*  
19           *building science experts from the National Laboratories and*  
20           *institutions of higher education, designers and builders of*  
21           *energy-efficient residential and commercial buildings, code*  
22           *officials, and other stakeholders, shall undertake a study of*  
23           *the feasibility, impact, economics, and merit of—*

24                   “(1) *code improvements that would require that*  
25                   *buildings be designed, sited, and constructed in a*

1        *manner that makes the buildings more adaptable in*  
2        *the future to become zero-net-energy after initial con-*  
3        *struction, as advances are achieved in energy-saving*  
4        *technologies;*

5            *“(2) code procedures to incorporate measured*  
6        *lifetimes, not just first-year energy use, in trade-offs*  
7        *and performance calculations; and*

8            *“(3) legislative options for increasing energy sav-*  
9        *ings from building energy codes, including additional*  
10       *incentives for effective State and local action, and*  
11       *verification of compliance with and enforcement of a*  
12       *code other than by a State or local government.*

13        *“(i) VOLUNTARY CODES AND STANDARDS.—*  
14       *Notwithstanding any other provision of this section, any*  
15       *model building code or standard established under this sec-*  
16       *tion shall not be binding on a State, local government, or*  
17       *Indian tribe as a matter of Federal law.*

18        *“(j) AUTHORIZATION OF APPROPRIATIONS.—There are*  
19       *authorized to be appropriated to carry out this section*  
20       *\$200,000,000, to remain available until expended.”.*

21        *(b) DEFINITION OF IECC.—Section 303 of the Energy*  
22       *Conservation and Production Act (42 U.S.C. 6832) is*  
23       *amended by adding at the end the following:*

24            *“(17) IECC.—The term ‘IECC’ means the Inter-*  
25       *national Energy Conservation Code.*



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-Deter-*  
 4           *mination Act of 1996 (25 U.S.C. 4103).*”.

5           (c) *CONFORMING AMENDMENT*.—Section 307 of the  
 6           *Energy Conservation and Production Act (42 U.S.C. 6836)*  
 7           is repealed.

8           ***Subtitle B—Worker Training and***  
 9           ***Capacity Building***

10       ***SEC. 111. BUILDING TRAINING AND ASSESSMENT CENTERS.***

11       (a) *IN GENERAL*.—The Secretary of Energy shall pro-  
 12       vide grants to institutions of higher education (as defined  
 13       in section 101 of the *Higher Education Act of 1965 (20*  
 14       *U.S.C. 1001)*) and *Tribal Colleges or Universities (as de-*  
 15       *finied in section 316(b) of that Act (20 U.S.C. 1059c(b))* to  
 16       establish building training and assessment centers—

17               (1) to identify opportunities for optimizing en-  
 18       ergy efficiency and environmental performance in  
 19       buildings;

20               (2) to promote the application of emerging con-  
 21       cepts and technologies in commercial and institu-  
 22       tional buildings;

23               (3) to train engineers, architects, building sci-  
 24       entists, building energy permitting and enforcement

1 *officials, and building technicians in energy-efficient*  
2 *design and operation;*

3 *(4) to assist institutions of higher education and*  
4 *Tribal Colleges or Universities in training building*  
5 *technicians;*

6 *(5) to promote research and development for the*  
7 *use of alternative energy sources and distributed gen-*  
8 *eration to supply heat and power for buildings, par-*  
9 *ticularly energy-intensive buildings; and*

10 *(6) to coordinate with and assist State-accredited*  
11 *technical training centers, community colleges, Tribal*  
12 *Colleges or Universities, and local offices of the Na-*  
13 *tional Institute of Food and Agriculture and ensure*  
14 *appropriate services are provided under this section*  
15 *to each region of the United States.*

16 *(b) COORDINATION AND NONDUPLICATION.—*

17 *(1) IN GENERAL.—The Secretary shall coordi-*  
18 *nate the program with the Industrial Assessment Cen-*  
19 *ters program and with other Federal programs to*  
20 *avoid duplication of effort.*

21 *(2) COLLOCATION.—To the maximum extent*  
22 *practicable, building, training, and assessment centers*  
23 *established under this section shall be collocated with*  
24 *Industrial Assessment Centers.*

1 **TITLE II—BUILDING EFFICIENCY**  
2 **FINANCE**

3 **SEC. 201. LOAN PROGRAM FOR ENERGY EFFICIENCY UP-**  
4 **GRADES TO EXISTING BUILDINGS.**

5 *Title XVII of the Energy Policy Act of 2005 (42 U.S.C.*  
6 *16511 et seq.) is amended by adding at the end the fol-*  
7 *lowing:*

8 **“SEC. 1706. BUILDING RETROFIT FINANCING PROGRAM.**

9 *“(a) DEFINITIONS.—In this section:*

10 *“(1) CREDIT SUPPORT.—The term ‘credit sup-*  
11 *port’ means a guarantee or commitment to issue a*  
12 *guarantee or other forms of credit enhancement to*  
13 *ameliorate risks for efficiency obligations.*

14 *“(2) EFFICIENCY OBLIGATION.—The term ‘effi-*  
15 *ciency obligation’ means a debt or repayment obliga-*  
16 *tion incurred in connection with financing a project,*  
17 *or a portfolio of such debt or payment obligations.*

18 *“(3) PROJECT.—The term ‘project’ means the in-*  
19 *stallation and implementation of efficiency, advanced*  
20 *metering, distributed generation, or renewable energy*  
21 *technologies and measures in a building (or in mul-*  
22 *tiple buildings on a given property) that are expected*  
23 *to increase the energy efficiency of the building (in-*  
24 *cluding fixtures) in accordance with criteria estab-*  
25 *lished by the Secretary.*

1       “(b) *ELIGIBLE PROJECTS.*—

2               “(1) *IN GENERAL.*—*Notwithstanding sections*  
3       *1703 and 1705, the Secretary may provide credit sup-*  
4       *port under this section, in accordance with section*  
5       *1702.*

6               “(2) *INCLUSIONS.*—*Buildings eligible for credit*  
7       *support under this section include commercial, multi-*  
8       *family residential, industrial, municipal, government,*  
9       *institution of higher education, school, and hospital*  
10       *facilities that satisfy criteria established by the Sec-*  
11       *retary.*

12       “(c) *GUIDELINES.*—

13               “(1) *IN GENERAL.*—*Not later than 180 days*  
14       *after the date of enactment of this section, the Sec-*  
15       *retary shall—*

16                       “(A) *establish guidelines for credit support*  
17                       *provided under this section; and*

18                       “(B) *publish the guidelines in the Federal*  
19                       *Register; and*

20                       “(C) *provide for an opportunity for public*  
21                       *comment on the guidelines.*

22               “(2) *REQUIREMENTS.*—*The guidelines estab-*  
23       *lished by the Secretary under this subsection shall in-*  
24       *clude—*

1           “(A) standards for assessing the energy sav-  
2           ings that could reasonably be expected to result  
3           from a project;

4           “(B) examples of financing mechanisms  
5           (and portfolios of such financing mechanisms)  
6           that qualify as efficiency obligations;

7           “(C) the threshold levels of energy savings  
8           that a project, at the time of issuance of credit  
9           support, shall be reasonably expected to achieve  
10          to be eligible for credit support;

11          “(D) the eligibility criteria the Secretary  
12          determines to be necessary for making credit sup-  
13          port available under this section; and

14          “(E) notwithstanding subsections (d)(3) and  
15          (g)(2)(B) of section 1702, any lien priority re-  
16          quirements that the Secretary determines to be  
17          necessary, in consultation with the Director of  
18          the Office of Management and Budget, which  
19          may include—

20                 “(i) mechanisms to preserve prior lien  
21                 positions of mortgage lenders and other  
22                 creditors in buildings eligible for credit sup-  
23                 port;

24                 “(ii) remedies available to the Sec-  
25                 retary under chapter 176 of title 28, United

1           *States Code, in the event of default on the*  
2           *efficiency obligation by the borrower; and*

3           “(iii) *measures to limit the exposure of*  
4           *the Secretary to financial risk in the event*  
5           *of default, such as—*

6                   “(I) *the collection of a credit sub-*  
7                   *sidy fee from the borrower as a loan*  
8                   *loss reserve, taking into account the*  
9                   *limitation on credit support under*  
10                  *subsection (d);*

11                  “(II) *minimum debt-to-income*  
12                  *levels of the borrower;*

13                  “(III) *minimum levels of value*  
14                  *relative to outstanding mortgage or*  
15                  *other debt on a building eligible for*  
16                  *credit support;*

17                  “(IV) *allowable thresholds for the*  
18                  *percent of the efficiency obligation rel-*  
19                  *ative to the amount of any mortgage or*  
20                  *other debt on an eligible building;*

21                  “(V) *analysis of historic and an-*  
22                  *ticipated occupancy levels and rental*  
23                  *income of an eligible building;*

24                  “(VI) *requirements of third-party*  
25                  *contractors to guarantee energy savings*

1           *that will result from a retrofit project,*  
2           *and whether financing on the efficiency*  
3           *obligation will amortize from the en-*  
4           *ergy savings;*

5           *“(VII) requirements that the ret-*  
6           *rofit project incorporate protocols to*  
7           *measure and verify energy savings;*  
8           *and*

9           *“(VIII) recovery of payments*  
10           *equally by the Secretary and the ret-*  
11           *rofit.*

12           *“(3) EFFICIENCY OBLIGATIONS.—The financing*  
13           *mechanisms qualified by the Secretary under para-*  
14           *graph (2)(B) may include—*

15           *“(A) loans, including loans made by the*  
16           *Federal Financing Bank;*

17           *“(B) power purchase agreements, including*  
18           *energy efficiency power purchase agreements;*

19           *“(C) energy services agreements, including*  
20           *energy performance contracts;*

21           *“(D) property assessed clean energy bonds*  
22           *and other tax assessment-based financing mecha-*  
23           *nisms;*

24           *“(E) aggregate on-meter agreements that fi-*  
25           *nance retrofit projects; and*

1           “(F) any other efficiency obligations the  
2           Secretary determines to be appropriate.

3           “(4) PRIORITIES.—In carrying out this section,  
4           the Secretary shall prioritize—

5           “(A) the maximization of energy savings  
6           with the available credit support funding;

7           “(B) the establishment of a clear applica-  
8           tion and approval process that allows private  
9           building owners, lenders, and investors to rea-  
10          sonably expect to receive credit support for  
11          projects that conform to guidelines;

12          “(C) the distribution of projects receiving  
13          credit support under this section across States or  
14          geographical regions of the United States; and

15          “(D) projects designed to achieve whole-  
16          building retrofits.

17          “(d) LIMITATION.—Notwithstanding section 1702(c),  
18          the Secretary shall not issue credit support under this sec-  
19          tion in an amount that exceeds—

20                 “(1) 90 percent of the principal amount of the  
21                 efficiency obligation that is the subject of the credit  
22                 support; or

23                 “(2) \$10,000,000 for any single project.

24          “(e) AGGREGATION OF PROJECTS.—To the extent pro-  
25          vided in the guidelines developed in accordance with sub-



1 *section (c), the Secretary may issue credit support on a*  
2 *portfolio, or pool of projects, that are not required to be*  
3 *geographically contiguous, if each efficiency obligation in*  
4 *the pool fulfills the requirements described in this section.*

5 *“(f) APPLICATION.—*

6 *“(1) IN GENERAL.—To be eligible to receive cred-*  
7 *it support under this section, the applicant shall sub-*  
8 *mit to the Secretary an application at such time, in*  
9 *such manner, and containing such information as the*  
10 *Secretary determines to be necessary.*

11 *“(2) CONTENTS.—An application submitted*  
12 *under this section shall include assurances by the ap-*  
13 *plicant that—*

14 *“(A) each contractor carrying out the*  
15 *project meets minimum experience level criteria,*  
16 *including local retrofit experience, as determined*  
17 *by the Secretary;*

18 *“(B) the project is reasonably expected to*  
19 *achieve energy savings, as set forth in the appli-*  
20 *cation using any methodology that meets the*  
21 *standards described in the program guidelines;*

22 *“(C) the project meets any technical criteria*  
23 *described in the program guidelines;*

1           “(D) the recipient of the credit support and  
2           the parties to the efficiency obligation will pro-  
3           vide the Secretary with—

4                   “(i) any information the Secretary re-  
5                   quests to assess the energy savings that re-  
6                   sult from the project, including historical  
7                   energy usage data, a simulation-based  
8                   benchmark, and detailed descriptions of the  
9                   building work, as described in the program  
10                  guidelines; and

11                   “(ii) permission to access information  
12                   relating to building operations and usage  
13                   for the period described in the program  
14                   guidelines; and

15           “(E) any other assurances that the Sec-  
16           retary determines to be necessary.

17           “(3) DETERMINATION.—Not later than 90 days  
18           after receiving an application, the Secretary shall  
19           make a final determination on the application, which  
20           may include requests for additional information.

21           “(g) FEES.—

22                   “(1) IN GENERAL.—In addition to the fees re-  
23                   quired by section 1702(h)(1), the Secretary may  
24                   charge reasonable fees for credit support provided  
25                   under this section.

1           “(2) *AVAILABILITY.*—*Fees collected under this*  
2           *section shall be subject to section 1702(h)(2).*

3           “(h) *UNDERWRITING.*—*The Secretary may delegate the*  
4           *underwriting activities under this section to 1 or more enti-*  
5           *ties that the Secretary determines to be qualified.*

6           “(i) *REPORT.*—*Not later than 1 year after commence-*  
7           *ment of the program, the Secretary shall submit to the ap-*  
8           *propriate committees of Congress a report that describes in*  
9           *reasonable detail—*

10           “(1) *the manner in which this section is being*  
11           *carried out;*

12           “(2) *the number and type of projects supported;*

13           “(3) *the types of funding mechanisms used to*  
14           *provide credit support to projects;*

15           “(4) *the energy savings expected to result from*  
16           *projects supported by this section;*

17           “(5) *any tracking efforts the Secretary is using*  
18           *to calculate the actual energy savings produced by the*  
19           *projects; and*

20           “(6) *any plans to improve the tracking efforts*  
21           *described in paragraph (5).*

22           “(j) *FUNDING.*—

23           “(1) *AUTHORIZATION OF APPROPRIATIONS.*—  
24           *There is authorized to be appropriated to the Sec-*  
25           *retary to carry out this section \$400,000,000 for the*

1       *period of fiscal years 2012 through 2021, to remain*  
 2       *available until expended.*

3               “(2) *ADMINISTRATIVE COSTS.*—*Not more than 1*  
 4       *percent of any amounts made available to the Sec-*  
 5       *retary under paragraph (1) may be used by the Sec-*  
 6       *retary for administrative costs incurred in carrying*  
 7       *out this section.”.*

8       ***TITLE III—INDUSTRIAL EFFI-***  
 9       ***CIENCY AND COMPETITIVE-***  
 10       ***NESS***

11       ***Subtitle A—Manufacturing Energy***  
 12       ***Efficiency***

13       ***SEC. 301. STATE PARTNERSHIP INDUSTRIAL ENERGY EFFI-***  
 14       ***CIENCY REVOLVING LOAN PROGRAM.***

15       *Section 399A of the Energy Policy and Conservation*  
 16       *Act (42 U.S.C. 6371h–1) is amended—*

17               (1) *in the section heading, by inserting “**AND***  
 18       ***INDUSTRY*” before the period at the end;**

19               (2) *by redesignating subsections (h) and (i) as*  
 20       *subsections (i) and (j), respectively; and*

21               (3) *by inserting after subsection (g) the fol-*  
 22       *lowing:*

23               “(h) *STATE PARTNERSHIP INDUSTRIAL ENERGY EFFI-*  
 24       ***CIENCY REVOLVING LOAN PROGRAM.***—

1           “(1) *IN GENERAL.*—*The Secretary shall carry*  
2           *out a program under which the Secretary shall pro-*  
3           *vide grants to eligible lenders to pay the Federal*  
4           *share of creating a revolving loan program under*  
5           *which loans are provided to commercial and indus-*  
6           *trial manufacturers to implement commercially avail-*  
7           *able technologies or processes that significantly—*

8                   “(A) *reduce systems energy intensity, in-*  
9                   *cluding the use of energy-intensive feedstocks;*  
10                  *and*

11                  “(B) *improve the industrial competitiveness*  
12                  *of the United States.*

13           “(2) *ELIGIBLE LENDERS.*—*To be eligible to re-*  
14           *ceive cost-matched Federal funds under this sub-*  
15           *section, a lender shall—*

16                   “(A) *be a community and economic develop-*  
17                   *ment lender that the Secretary certifies meets the*  
18                   *requirements of this subsection;*

19                   “(B) *lead a partnership that includes par-*  
20                   *ticipation by, at a minimum—*

21                           “(i) *a State government agency; and*

22                           “(ii) *a private financial institution or*  
23                           *other provider of loan capital;*

24                   “(C) *submit an application to the Sec-*  
25                   *retary, and receive the approval of the Secretary,*

1           *for cost-matched Federal funds to carry out a*  
2           *loan program described in paragraph (1); and*

3           “(D) *ensure that non-Federal funds are pro-*  
4           *vided to match, on at least a dollar-for-dollar*  
5           *basis, the amount of Federal funds that are pro-*  
6           *vided to carry out a revolving loan program de-*  
7           *scribed in paragraph (1).*

8           “(3) *AWARD.—The amount of cost-matched Fed-*  
9           *eral funds provided to an eligible lender shall not ex-*  
10          *ceed \$100,000,000 for any fiscal year.*

11          “(4) *RECAPTURE OF AWARDS.—*

12           “(A) *IN GENERAL.—An eligible lender that*  
13           *receives an award under paragraph (1) shall be*  
14           *required to repay to the Secretary an amount of*  
15           *cost-match Federal funds, as determined by the*  
16           *Secretary under subparagraph (B), if the eligible*  
17           *lender is unable or unwilling to operate a pro-*  
18           *gram described in this subsection for a period of*  
19           *not less than 10 years beginning on the date on*  
20           *which the eligible lender first receives funds*  
21           *made available through the award.*

22           “(B) *DETERMINATION BY SECRETARY.—The*  
23           *Secretary shall determine the amount of cost-*  
24           *match Federal funds that an eligible lender shall*  
25           *be required to repay to the Secretary under sub-*

1           *paragraph (A) based on the consideration by the*  
2           *Secretary of—*

3                     *“(i) the amount of non-Federal funds*  
4                     *matched by the eligible lender;*

5                     *“(ii) the amount of loan losses incurred*  
6                     *by the revolving loan program described in*  
7                     *paragraph (1); and*

8                     *“(iii) any other appropriate factor, as*  
9                     *determined by the Secretary.*

10                    *“(C) USE OF RECAPTURED COST-MATCH*  
11                    *FEDERAL FUNDS.—The Secretary may distribute*  
12                    *to eligible lenders under this subsection each*  
13                    *amount received by the Secretary under this*  
14                    *paragraph.*

15                    *“(5) ELIGIBLE PROJECTS.—A program for which*  
16                    *cost-matched Federal funds are provided under this*  
17                    *subsection shall be designed to accelerate the imple-*  
18                    *mentation of industrial and commercial applications*  
19                    *of technologies or processes (including distributed gen-*  
20                    *eration, applications or technologies that use sensors,*  
21                    *meters, software, and information networks, controls,*  
22                    *and drives or that have been installed pursuant to an*  
23                    *energy savings performance contract, project, or strat-*  
24                    *egy) that—*

1           “(A) improve energy efficiency, including  
2           improvements in efficiency and use of water,  
3           power factor, or load management;

4           “(B) enhance the industrial competitiveness  
5           of the United States; and

6           “(C) achieve such other goals as the Sec-  
7           retary determines to be appropriate.

8           “(6) EVALUATION.—The Secretary shall evaluate  
9           applications for cost-matched Federal funds under  
10          this subsection on the basis of—

11           “(A) the description of the program to be  
12           carried out with the cost-matched Federal funds;

13           “(B) the commitment to provide non-Fed-  
14           eral funds in accordance with paragraph (2)(D);

15           “(C) program sustainability over a 10-year  
16           period;

17           “(D) the capability of the applicant;

18           “(E) the quantity of energy savings or en-  
19           ergy feedstock minimization;

20           “(F) the advancement of the goal under this  
21           Act of 25-percent energy avoidance;

22           “(G) the ability to fund energy efficient  
23           projects not later than 120 days after the date of  
24           the grant award; and



1                   “(H) such other factors as the Secretary de-  
2                   termines appropriate.

3                   “(7) *AUTHORIZATION OF APPROPRIATIONS.*—  
4                   *There are authorized to be appropriated to carry out*  
5                   *this subsection, \$400,000,000 for each of fiscal years*  
6                   *2012 through 2021.*”.

7 **SEC. 302. COORDINATION OF RESEARCH AND DEVELOP-**  
8                   **MENT OF ENERGY EFFICIENT TECHNOLOGIES**  
9                   **FOR INDUSTRY.**

10                  (a) *IN GENERAL.*—*As part of the research and develop-*  
11                  *ment activities of the Industrial Technologies Program of*  
12                  *the Department of Energy, the Secretary shall establish, as*  
13                  *appropriate, collaborative research and development part-*  
14                  *nerships with other programs within the Office of Energy*  
15                  *Efficiency and Renewable Energy (including the Building*  
16                  *Technologies Program), the Office of Electricity Delivery*  
17                  *and Energy Reliability, and the Office of Science that—*

18                         (1) *leverage the research and development exper-*  
19                         *tise of those programs to promote early stage energy*  
20                         *efficiency technology development;*

21                         (2) *support the use of innovative manufacturing*  
22                         *processes and applied research for development, dem-*  
23                         *onstration, and commercialization of new technologies*  
24                         *and processes to improve efficiency (including im-*  
25                         *provements in efficient use of water), reduce emis-*



1           (8) *petroleum refining;*

2           (9) *cement;*

3           (10) *industrial gases;*

4           (11) *information and communication tech-*  
5 *nologies; and*

6           (12) *other industries that (as determined by the*  
7 *Secretary)—*

8                   (A) *use large quantities of energy;*

9                   (B) *emit large quantities of greenhouse*  
10 *gases; or*

11                   (C) *use a rapidly increasing quantity of en-*  
12 *ergy.*

13       (b) *REPORT.—Not later than 1 year after the date of*  
14 *enactment of this Act, the Secretary shall publish a report,*  
15 *in collaboration with affected energy-intensive industries,*  
16 *based on the assessment conducted under subsection (a),*  
17 *that contains—*

18                   (1) *a detailed inventory describing the cost, en-*  
19 *ergy, and greenhouse gas emission savings of each*  
20 *technology described in subsection (a);*

21                   (2) *for each technology, the total cost, energy,*  
22 *water, and greenhouse gas emissions savings if the*  
23 *technology is implemented throughout the industry of*  
24 *the United States;*

1           (3) for each industry, an assessment of total possible cost, energy, and greenhouse gas emissions savings possible if state-of-the art, cost-competitive, commercial energy efficiency technologies were adopted;

2  
3  
4  
5           (4) for each industry, a comparison to the European Union, Japan, and other appropriate countries of energy efficiency technology adoption rates, as determined by the Secretary, including an examination of the policy structures in those countries that promote investments in energy efficiency technologies;

6  
7  
8  
9  
10          (5) recommendations on how to create and retain jobs in the United States through private sector collaboration of energy service providers and energy-intensive industries; and

11          (6) an assessment of energy savings available from increased use of recycled material in energy-intensive manufacturing processes.

12  
13  
14  
15  
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17  
18 **SEC. 304. FUTURE OF INDUSTRY PROGRAM.**

19          (a) *IN GENERAL.*—Section 452 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111) is  
20 amended by striking the section heading and inserting the  
21 following: “**FUTURE OF INDUSTRY PROGRAM**”.

22  
23          (b) *DEFINITION OF ENERGY SERVICE PROVIDER.*—  
24 Section 452(a) of the Energy Independence and Security  
25 Act of 2007 (42 U.S.C. 17111(a)) is amended—

1           (1) by redesignating paragraphs (3) through (5)  
2           as paragraphs (4) through (6), respectively; and

3           (2) by inserting after paragraph (3):

4           “(5) *ENERGY SERVICE PROVIDER*.—The term  
5           ‘energy service provider’ means any private company  
6           or similar entity providing technology or services to  
7           improve energy efficiency in an energy-intensive in-  
8           dustry.”.

9           (c) *INDUSTRY-SPECIFIC ROAD MAPS*.—Section  
10          452(c)(2) of the Energy Independence and Security Act of  
11          2007 (42 U.S.C. 17111(c)(2)) is amended—

12           (1) in subparagraph (E), by striking “and” at  
13           the end;

14           (2) by redesignating subparagraph (F) as sub-  
15           paragraph (G); and

16           (3) by inserting after subparagraph (E) the fol-  
17           lowing:

18           “(F) research to establish (through the In-  
19           dustrial Technologies Program and in collabora-  
20           tion with energy-intensive industries) a road  
21           map process under which—

22           “(i) industry-specific studies are con-  
23           ducted to determine the intensity of energy  
24           use, greenhouse gas emissions, and waste

1           and operating costs, by process and sub-  
2           process;

3           “(ii) near-, mid-, and long-term tar-  
4           gets of opportunity are established for syn-  
5           ergistic improvements in efficiency, sustain-  
6           ability, and resilience; and

7           “(iii) public-private actionable plans  
8           are created to achieve roadmap goals; and”.

9           (d) *INDUSTRIAL RESEARCH AND ASSESSMENT CEN-*  
10 *TERS.—*

11           (1) *IN GENERAL.—Section 452(e) of the Energy*  
12 *Independence and Security Act of 2007 (42 U.S.C.*  
13 *17111(e)) is amended—*

14           (A) *by redesignating paragraphs (1)*  
15 *through (5) as subparagraphs (A) through (E),*  
16 *respectively, and indenting appropriately;*

17           (B) *by striking “The Secretary” and insert-*  
18 *ing the following:*

19           “(1) *IN GENERAL.—The Secretary*”;

20           (C) *in subparagraph (A) (as redesignated*  
21 *by subparagraph (A)), by inserting before the*  
22 *semicolon at the end the following: “, including*  
23 *assessments of sustainable manufacturing goals*  
24 *and the implementation of information tech-*  
25 *nology advancements for supply chain analysis,*

1           *logistics, system monitoring, industrial and*  
2           *manufacturing processes, and other purposes”;*  
3           *and*

4           *(D) by adding at the end the following:*

5           “(2) *CENTERS OF EXCELLENCE.*—

6           “(A) *IN GENERAL.*—*The Secretary shall es-*  
7           *tablish a Center of Excellence at up to 10 of the*  
8           *highest performing industrial research and as-*  
9           *essment centers, as determined by the Secretary.*

10          “(B) *DUTIES.*—*A Center of Excellence shall*  
11          *coordinate with and advise the industrial re-*  
12          *search and assessment centers located in the re-*  
13          *gion of the Center of Excellence.*

14          “(C) *FUNDING.*—*Subject to the availability*  
15          *of appropriations, of the funds made available*  
16          *under subsection (f), the Secretary shall use to*  
17          *support each Center of Excellence not less than*  
18          *\$500,000 for fiscal year 2012 and each fiscal*  
19          *year thereafter, as determined by the Secretary.*

20          “(3) *EXPANSION OF CENTERS.*—*The Secretary*  
21          *shall provide funding to establish additional indus-*  
22          *trial research and assessment centers at institutions*  
23          *of higher education that do not have industrial re-*  
24          *search and assessment centers established under para-*  
25          *graph (1), taking into account the size of, and poten-*

1        *tial energy efficiency savings for, the manufacturing*  
2        *base within the region of the proposed center.*

3            *“(4) COORDINATION.—*

4            *“(A) IN GENERAL.—To increase the value*  
5            *and capabilities of the industrial research and*  
6            *assessment centers, the centers shall—*

7            *“(i) coordinate with Manufacturing*  
8            *Extension Partnership Centers of the Na-*  
9            *tional Institute of Standards and Tech-*  
10           *nology;*

11           *“(ii) coordinate with the Building*  
12           *Technologies Program of the Department of*  
13           *Energy to provide building assessment serv-*  
14           *ices to manufacturers;*

15           *“(iii) increase partnerships with the*  
16           *National Laboratories of the Department of*  
17           *Energy to leverage the expertise and tech-*  
18           *nologies of the National Laboratories for*  
19           *national industrial and manufacturing*  
20           *needs;*

21           *“(iv) increase partnerships with energy*  
22           *service providers and technology providers*  
23           *to leverage private sector expertise and ac-*  
24           *celerate deployment of new and existing*



1            *technologies and processes for energy effi-*  
2            *ciency, power factor, and load management;*

3            *“(v) identify opportunities for reduc-*  
4            *ing greenhouse gas emissions; and*

5            *“(vi) promote sustainable manufac-*  
6            *turing practices for small- and medium-*  
7            *sized manufacturers.*

8            *“(5) OUTREACH.—The Secretary shall provide*  
9            *funding for—*

10            *“(A) outreach activities by the industrial*  
11            *research and assessment centers to inform small-*  
12            *and medium-sized manufacturers of the informa-*  
13            *tion, technologies, and services available; and*

14            *“(B) a full-time equivalent employee at each*  
15            *center of excellence whose primary mission shall*  
16            *be to coordinate and leverage the efforts of the*  
17            *center with—*

18            *“(i) Federal and State efforts;*

19            *“(ii) the efforts of utilities and energy*  
20            *service providers;*

21            *“(iii) the efforts of regional energy effi-*  
22            *ciency organizations; and*

23            *“(iv) the efforts of other centers in the*  
24            *region of the center of excellence.*

25            *“(6) WORKFORCE TRAINING.—*

1           “(A) *IN GENERAL.*—*The Secretary shall pay*  
2           *the Federal share of associated internship pro-*  
3           *grams under which students work with or for in-*  
4           *dustries, manufacturers, and energy service pro-*  
5           *viders to implement the recommendations of in-*  
6           *dustrial research and assessment centers.*

7           “(B) *FEDERAL SHARE.*—*The Federal share*  
8           *of the cost of carrying out internship programs*  
9           *described in subparagraph (A) shall be 50 per-*  
10          *cent.*

11          “(C) *FUNDING.*—*Subject to the availability*  
12          *of appropriations, of the funds made available*  
13          *under subsection (f), the Secretary shall use to*  
14          *carry out this paragraph not less than*  
15          *\$5,000,000 for fiscal year 2012 and each fiscal*  
16          *year thereafter.*

17          “(7) *SMALL BUSINESS LOANS.*—*The Adminis-*  
18          *trator of the Small Business Administration shall, to*  
19          *the maximum practicable, expedite consideration of*  
20          *applications from eligible small business concerns for*  
21          *loans under the Small Business Act (15 U.S.C. 631*  
22          *et seq.) to implement recommendations of industrial*  
23          *research and assessment centers established under*  
24          *paragraph (1).”.*

1 **SEC. 305. SUSTAINABLE MANUFACTURING INITIATIVE.**

2       (a) *IN GENERAL.*—Part E of title III of the Energy  
3 Policy and Conservation Act (42 U.S.C. 6341) is amended  
4 by adding at the end the following:

5 **“SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.**

6       “(a) *IN GENERAL.*—As part of the Industrial Tech-  
7 nologies Program of the Department of Energy, the Sec-  
8 retary shall carry out a sustainable manufacturing initia-  
9 tive under which the Secretary, on the request of a manufac-  
10 turer, shall conduct onsite technical assessments to identify  
11 opportunities for—

12               “(1) maximizing the energy efficiency of indus-  
13 trial processes and cross-cutting systems;

14               “(2) preventing pollution and minimizing waste;

15               “(3) improving efficient use of water in manu-  
16 facturing processes;

17               “(4) conserving natural resources; and

18               “(5) achieving such other goals as the Secretary  
19 determines to be appropriate.

20       “(b) *COORDINATION.*—The Secretary shall carry out  
21 the initiative in coordination with the private sector and  
22 appropriate agencies, including the National Institute of  
23 Standards and Technology to accelerate adoption of new  
24 and existing technologies or processes that improve energy  
25 efficiency.

1       “(c) *RESEARCH AND DEVELOPMENT PROGRAM FOR*  
 2 *SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECH-*  
 3 *NOLOGIES AND PROCESSES.*—*As part of the Industrial*  
 4 *Technologies Program of the Department of Energy, the*  
 5 *Secretary shall carry out a joint industry-government part-*  
 6 *nership program to research, develop, and demonstrate new*  
 7 *sustainable manufacturing and industrial technologies and*  
 8 *processes that maximize the energy efficiency of industrial*  
 9 *systems, reduce pollution, and conserve natural resources.*

10       “(d) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 11 *authorized to be to carry out this section \$10,000,000 for*  
 12 *the period of fiscal years 2012 through 2021.”.*

13       “(b) *TABLE OF CONTENTS.*—*The table of contents of the*  
 14 *Energy Policy and Conservation Act (42 U.S.C. prec. 6201)*  
 15 *is amended by adding at the end of the items relating to*  
 16 *part E of title III the following:*

      “*Sec. 376. Sustainable manufacturing initiative.*”.

17 **SEC. 306. STUDY OF ADVANCED ENERGY TECHNOLOGY**  
 18                               **MANUFACTURING CAPABILITIES IN THE**  
 19                               **UNITED STATES.**

20       “(a) *IN GENERAL.*—*Not later than 60 days after the*  
 21 *date of enactment of this Act, the Secretary shall enter into*  
 22 *an arrangement with the National Academy of Sciences*  
 23 *under which the Academy shall conduct a study of the devel-*  
 24 *opment of advanced manufacturing capabilities for various*  
 25 *energy technologies, including—*

1           (1) *an assessment of the manufacturing supply*  
2 *chains of established and emerging industries;*

3           (2) *an analysis of—*

4                 (A) *the manner in which supply chains*  
5 *have changed over the 25-year period ending on*  
6 *the date of enactment of this Act;*

7                 (B) *current trends in supply chains; and*

8                 (C) *the energy intensity of each part of the*  
9 *supply chain and opportunities for improve-*  
10 *ment;*

11           (3) *for each technology or manufacturing sector,*  
12 *an analysis of which sections of the supply chain are*  
13 *critical for the United States to retain or develop to*  
14 *be competitive in the manufacturing of the technology;*

15           (4) *an assessment of which emerging energy tech-*  
16 *nologies the United States should focus on to create or*  
17 *enhance manufacturing capabilities; and*

18           (5) *recommendations on leveraging the expertise*  
19 *of energy efficiency and renewable energy user facili-*  
20 *ties so that best materials and manufacturing prac-*  
21 *tices are designed and implemented.*

22           (b) *REPORT.—Not later than 2 years after the date*  
23 *on which the Secretary enters into the agreement with the*  
24 *Academy described in subsection (a), the Academy shall*  
25 *submit to the Committee on Energy and Natural Resources*

1 *of the Senate, the Committee on Energy and Commerce of*  
 2 *the House of Representatives, and the Secretary a report*  
 3 *describing the results of the study required under this sec-*  
 4 *tion, including any findings and recommendations.*

5 **SEC. 307. INDUSTRIAL TECHNOLOGIES STEERING COM-**  
 6 **MITTEE.**

7 *The Secretary shall establish an advisory steering com-*  
 8 *mittee that includes national trade associations rep-*  
 9 *resenting energy-intensive industries or energy service pro-*  
 10 *viders to provide recommendations to the Secretary on*  
 11 *planning and implementation of the Industrial Tech-*  
 12 *nologies Program of the Department of Energy.*

13 ***Subtitle B—Supply Star***

14 **SEC. 311. SUPPLY STAR.**

15 *Part B of title III of the Energy Policy and Conserva-*  
 16 *tion Act (42 U.S.C. 6291) is amended by inserting after*  
 17 *section 324A (42 U.S.C. 6294a) the following:*

18 **“SEC. 324B. SUPPLY STAR PROGRAM.**

19 *“(a) IN GENERAL.—There is established within the De-*  
 20 *partment of Energy a Supply Star program to identify and*  
 21 *promote practices, recognize companies, and, as appro-*  
 22 *priate, recognize products that use highly efficient supply*  
 23 *chains in a manner that conserves energy, water, and other*  
 24 *resources.*

1       “(b) *COORDINATION.*—*In carrying out the program de-*  
2 *scribed in subsection (a), the Secretary shall—*

3               “(1) *consult with other appropriate agencies;*  
4 *and*

5               “(2) *coordinate efforts with the Energy Star pro-*  
6 *gram established under section 324A.*

7       “(c) *DUTIES.*—*In carrying out the Supply Star pro-*  
8 *gram described in subsection (a), the Secretary shall—*

9               “(1) *promote practices, recognize companies,*  
10 *and, as appropriate, recognize products that comply*  
11 *with the Supply Star program as the preferred prac-*  
12 *tices, companies, and products in the marketplace for*  
13 *maximizing supply chain efficiency;*

14               “(2) *work to enhance industry and public aware-*  
15 *ness of the Supply Star program;*

16               “(3) *collect and disseminate data on supply*  
17 *chain energy resource consumption;*

18               “(4) *develop and disseminate metrics, processes,*  
19 *and analytical tools (including software) for evalu-*  
20 *ating supply chain energy resource use;*

21               “(5) *develop guidance at the sector level for im-*  
22 *proving supply chain efficiency;*

23               “(6) *work with domestic and international orga-*  
24 *nizations to harmonize approaches to analyzing sup-*  
25 *ply chain efficiency, including the development of a*

1       *consistent set of tools, templates, calculators, and*  
2       *databases; and*

3               “(7) *work with industry, including small busi-*  
4       *nesses, to improve supply chain efficiency through ac-*  
5       *tivities that include—*

6                       “(A) *developing and sharing best practices;*  
7               *and*

8                       “(B) *providing opportunities to benchmark*  
9               *supply chain efficiency.*

10       “(d) *EVALUATION.—In any evaluation of supply chain*  
11       *efficiency carried out by the Secretary with respect to a spe-*  
12       *cific product, the Secretary shall consider energy consump-*  
13       *tion and resource use throughout the entire lifecycle of a*  
14       *product, including production, transport, packaging, use,*  
15       *and disposal.*

16       “(e) *GRANTS AND INCENTIVES.—*

17               “(1) *IN GENERAL.—The Secretary may award*  
18       *grants or other forms of incentives on a competitive*  
19       *basis to eligible entities, as determined by the Sec-*  
20       *retary, for the purposes of—*

21                       “(A) *studying supply chain energy resource*  
22               *efficiency; and*

23                       “(B) *demonstrating and achieving reduc-*  
24               *tions in the energy resource consumption of com-*  
25               *mercial products through changes and improve-*



1            *ments to the production supply and distribution*  
2            *chain of the products.*

3            “(2) *USE OF INFORMATION.—Any information*  
4            *or data generated as a result of the grants or incen-*  
5            *tives described in paragraph (1) shall be used to in-*  
6            *form the development of the Supply Star Program.*

7            “(f) *TRAINING.—The Secretary shall use funds to sup-*  
8            *port professional training programs to develop and commu-*  
9            *nicate methods, practices, and tools for improving supply*  
10           *chain efficiency.*

11           “(g) *EFFECT OF IMPACT ON CLIMATE CHANGE.—For*  
12           *purposes of this section, the impact on climate change shall*  
13           *not be a factor in determining supply chain efficiency.*

14           “(h) *EFFECT OF OUTSOURCING OF AMERICAN JOBS.—*  
15           *For purposes of this section, the outsourcing of American*  
16           *jobs in the production of a product shall not count as a*  
17           *positive factor in determining supply chain efficiency.*

18           “(i) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
19           *authorized to be appropriated to carry out this section*  
20           *\$10,000,000 for the period of fiscal years 2012 through*  
21           *2021.”.*

1     ***Subtitle C—Electric Motor Rebate***  
2                     ***Program***

3     ***SEC. 321. ENERGY SAVING MOTOR CONTROL REBATE PRO-***  
4                     ***GRAM.***

5             *(a) ESTABLISHMENT.—Not later than January 1,*  
6 *2012, the Secretary of Energy (referred to in this section*  
7 *as the “Secretary”) shall establish a program to provide*  
8 *rebates for expenditures made by entities for the purchase*  
9 *and installation of a new constant speed electric motor con-*  
10 *trol that reduces motor energy use by not less than 5 per-*  
11 *cent.*

12             *(b) REQUIREMENTS.—*

13                 *(1) APPLICATION.—To be eligible to receive a re-*  
14 *bate under this section, an entity shall submit to the*  
15 *Secretary an application in such form, at such time,*  
16 *and containing such information as the Secretary*  
17 *may require, including—*

18                     *(A) demonstrated evidence that the entity*  
19 *purchased a constant speed electric motor control*  
20 *that reduces motor energy use by not less than*  
21 *5 percent; and*

22                     *(B) the physical nameplate of the installed*  
23 *motor of the entity to which the energy saving*  
24 *motor control is attached.*

1           (2) *AUTHORIZED AMOUNT OF REBATE.*—*The*  
 2           *Secretary may provide to an entity that meets the re-*  
 3           *quirements of paragraph (1) a rebate the amount of*  
 4           *which shall be equal to the product obtained by multi-*  
 5           *plying—*

6                     *(A) the nameplate horsepower of the electric*  
 7                     *motor to which the energy saving motor control*  
 8                     *is attached; and*

9                     *(B) \$25.*

10          *(c) AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 11          *authorized to be appropriated to carry out this section*  
 12          *\$5,000,000 for each of fiscal years 2012 and 2013, to re-*  
 13          *main available until expended.*

14           ***Subtitle D—Transformer Rebate***  
 15                           ***Program***

16          ***SEC. 331. ENERGY EFFICIENT TRANSFORMER REBATE PRO-***  
 17                           ***GRAM.***

18          *(a) DEFINITION OF QUALIFIED TRANSFORMER.*—*In*  
 19          *this section, the term “qualified transformer” means a*  
 20          *transformer that meets or exceeds the National Electrical*  
 21          *Manufacturers Association (NEMA) Premium Efficiency*  
 22          *designation, calculated to 2 decimal points, as having 30*  
 23          *percent fewer losses than the NEMA TP-1-2002 efficiency*  
 24          *standard for a transformer of the same number of phases*  
 25          *and capacity, as measured in kilovolt-amperes.*

1       (b) *ESTABLISHMENT.*—Not later than January 1,  
2 2012, the Secretary of Energy (referred to in this section  
3 as the “Secretary”) shall establish a program to provide  
4 rebates for expenditures made by owners of commercial  
5 buildings and multifamily residential buildings for the pur-  
6 chase and installation of a new energy efficient trans-  
7 formers.

8       (c) *REQUIREMENTS.*—

9           (1) *APPLICATION.*—To be eligible to receive a re-  
10 bate under this section, an owner shall submit to the  
11 Secretary an application in such form, at such time,  
12 and containing such information as the Secretary  
13 may require, including demonstrated evidence that  
14 the owner purchased a qualified transformer.

15           (2) *AUTHORIZED AMOUNT OF REBATE.*—For  
16 qualified transformers, rebates, in dollars per kilovolt-  
17 ampere (referred to in this paragraph as “kVA”) shall  
18 be—

19           (A) for 3-phase transformers—

20                   (i) with a capacity of not greater than  
21 10 kVA, \$15;

22                   (ii) with a capacity of not less than 10  
23 kVA and not greater than 100 kVA, the dif-  
24 ference between 15 and the quotient ob-  
25 tained by dividing—

- 1 (I) the difference between—  
2 (aa) the capacity of the  
3 transformer in kVA; and  
4 (bb) 10; by  
5 (II) 9; and  
6 (iii) with a capacity greater than or  
7 equal to 100 kVA, \$5; and  
8 (B) for single-phase transformers, 75 per-  
9 cent of the rebate for a 3-phase transformer of  
10 the same capacity.

11 (d) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
12 *authorized to be appropriated to carry out this section*  
13 *\$5,000,000 for each of fiscal years 2012 and 2013, to re-*  
14 *main available until expended.*

15 ***TITLE IV—FEDERAL AGENCY***  
16 ***ENERGY EFFICIENCY***

17 ***SEC. 401. ADOPTION OF PERSONAL COMPUTER POWER SAV-***  
18 ***INGS TECHNIQUES BY FEDERAL AGENCIES.***

19 (a) *IN GENERAL.*—*Not later than 360 days after the*  
20 *date of enactment of this Act, the Secretary of Energy, in*  
21 *consultation with the Secretary of Defense, the Secretary*  
22 *of Veterans Affairs, and the Administrator of General Serv-*  
23 *ices, shall issue guidance for Federal agencies to employ ad-*  
24 *vanced tools allowing energy savings through the use of*

1 computer hardware, energy efficiency software, and power  
2 management tools.

3 (b) *REPORTS ON PLANS AND SAVINGS.*—Not later than  
4 180 days after the date of the issuance of the guidance under  
5 subsection (a), each Federal agency shall submit to the Sec-  
6 retary of Energy a report that describes—

7 (1) the plan of the agency for implementing the  
8 guidance within the agency; and

9 (2) estimated energy and financial savings from  
10 employing the tools described in subsection (a).

11 **SEC. 402. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.**

12 Section 3307 of title 40, United States Code, is amend-  
13 ed—

14 (1) by redesignating subsections (d) through (h)  
15 as subsections (e) through (i), respectively; and

16 (2) by inserting after subsection (c) the fol-  
17 lowing:

18 “(d) *AVAILABILITY OF FUNDS FOR DESIGN UP-*  
19 *DATES.*—

20 “(1) *IN GENERAL.*—Subject to paragraph (2), for  
21 any project for which congressional approval is re-  
22 ceived under subsection (a) and for which the design  
23 has been substantially completed but construction has  
24 not begun, the Administrator of General Services may  
25 use appropriated funds to update the project design

1       to meet applicable Federal building energy efficiency  
2       standards established under section 305 of the Energy  
3       Conservation and Production Act (42 U.S.C. 6834)  
4       and other requirements established under section  
5       3312.

6               “(2) *LIMITATION.*—The use of funds under para-  
7       graph (1) shall not exceed 125 percent of the esti-  
8       mated energy or other cost savings associated with the  
9       updates as determined by a life-cycle cost analysis  
10       under section 544 of the National Energy Conserva-  
11       tion Policy Act (42 U.S.C. 8254).”.

12   **SEC. 403. BEST PRACTICES FOR ADVANCED METERING.**

13       Section 543(e) of the National Energy Conservation  
14       Policy Act (42 U.S.C. 8253(e)) is amended by striking para-  
15       graph (3) and inserting the following:

16               “(3) *PLAN.*—

17                       “(A) *IN GENERAL.*—Not later than 180  
18       days after the date on which guidelines are es-  
19       tablished under paragraph (2), in a report sub-  
20       mitted by the agency under section 548(a), each  
21       agency shall submit to the Secretary a plan de-  
22       scribing the manner in which the agency will  
23       implement the requirements of paragraph (1),  
24       including—

1           “(i) how the agency will designate per-  
2           sonnel primarily responsible for achieving  
3           the requirements; and

4           “(ii) a demonstration by the agency,  
5           complete with documentation, of any find-  
6           ing that advanced meters or advanced me-  
7           tering devices (as those terms are used in  
8           paragraph (1)), are not practicable.

9           “(B) *UPDATES.*—Reports submitted under  
10          subparagraph (A) shall be updated annually.

11          “(4) *BEST PRACTICES REPORT.*—

12           “(A) *IN GENERAL.*—Not later than 180  
13          days after the date of enactment of the Energy  
14          Savings and Industrial Competitiveness Act of  
15          2011, the Secretary of Energy, in consultation  
16          with the Secretary of Defense and the Adminis-  
17          trator of General Services, shall develop, and  
18          issue a report on, best practices for the use of ad-  
19          vanced metering of energy use in Federal facili-  
20          ties, buildings, and equipment by Federal agen-  
21          cies.

22           “(B) *UPDATING.*—The report described  
23          under subparagraph (A) shall be updated annu-  
24          ally.



1           “(C) COMPONENTS.—The report shall in-  
2           clude, at a minimum—

3                   “(i) summaries and analysis of the re-  
4                   ports by agencies under paragraph (3);

5                   “(ii) recommendations on standard re-  
6                   quirements or guidelines for automated en-  
7                   ergy management systems, including—

8                           “(I) potential common commu-  
9                           nications standards to allow data shar-  
10                           ing and reporting;

11                           “(II) means of facilitating contin-  
12                           uous commissioning of buildings and  
13                           evidence-based maintenance of build-  
14                           ings and building systems; and

15                           “(III) standards for sufficient lev-  
16                           els of security and protection against  
17                           cyber threats to ensure systems cannot  
18                           be controlled by unauthorized persons;  
19                           and

20                   “(iii) an analysis of—

21                           “(I) the types of advanced meter-  
22                           ing and monitoring systems being pi-  
23                           loted, tested, or installed in Federal  
24                           buildings; and

1                   “(II) existing techniques used  
2                   within the private sector or other non-  
3                   Federal government buildings.”.

4 **SEC. 404. FEDERAL ENERGY MANAGEMENT AND DATA COL-**  
5 **LECTION STANDARD.**

6           Section 543 of the National Energy Conservation Pol-  
7 icy Act (42 U.S.C. 8253) is amended—

8                   (1) by redesignating the second subsection (f) (as  
9                   added by section 434(a) of Public Law 110–140 (121  
10                   Stat. 1614)) as subsection (g); and

11                   (2) in subsection (f)(7), by striking subpara-  
12                   graph (A) and inserting the following:

13                           “(A) *IN GENERAL.*—For each facility that  
14                           meets the criteria established by the Secretary  
15                           under paragraph (2)(B), the energy manager  
16                           shall use the web-based tracking system under  
17                           subparagraph (B)—

18                                   “(i) to certify compliance with the re-  
19                                   quirements for—

20   “(I) energy and water evaluations  
21   under paragraph (3);

22   “(II) implementation of identified  
23   energy and water measures under  
24   paragraph (4); and

1                   “(III) follow-up on implemented  
2                   measures under paragraph (5); and  
3                   “(ii) to publish energy and water con-  
4                   sumption data on an individual facility  
5                   basis.”.

6 **SEC. 405. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.**

7       Section 804(4) of the National Energy Conservation  
8 Policy Act (42 U.S.C. 8287c(4)) is amended—

9                   (1) in subparagraph (A), by striking “or” after  
10                  the semicolon;

11                  (2) in subparagraph (B), by striking the period  
12                  at the end and inserting “; or”; and

13                  (3) by adding at the end the following:

14                         “(C) a measure to support the use of electric  
15                         vehicles or the fueling or charging infrastructure  
16                         necessary for electric vehicles.”.

17 **SEC. 406. FEDERAL PURCHASE REQUIREMENT.**

18       Section 203 of the Energy Policy Act of 2005 (42  
19 U.S.C. 15852) is amended—

20                   (1) in subsections (a) and (b)(2), by striking  
21                  “electric energy” each place it appears and inserting  
22                  “electric and thermal energy”;

23                   (2) by redesignating subsection (d) as subsection  
24                  (e); and

1           (3) *by inserting after subsection (c) the fol-*  
2           *lowing:*

3           “(d) *SEPARATE CALCULATION.—Renewable energy*  
4           *produced at a Federal facility, on Federal land, or on In-*  
5           *dian land (as defined in section 2601 of the Energy Policy*  
6           *Act of 1992 (25 U.S.C. 3501))—*

7           *“(1) shall be calculated separately from renew-*  
8           *able energy used; and*

9           *“(2) may be used individually or in combination*  
10          *to comply with subsection (a).”.*

11   **SEC. 407. STUDY ON FEDERAL DATA CENTER CONSOLIDA-**  
12                                    **TION.**

13          (a) *IN GENERAL.—The Secretary of Energy shall con-*  
14          *duct a study on the feasibility of a government-wide data*  
15          *center consolidation, with an overall Federal target of a*  
16          *minimum of 800 Federal data center closures by October*  
17          *1, 2015.*

18          (b) *COORDINATION.—In conducting the study, the Sec-*  
19          *retary shall coordinate with Federal data center program*  
20          *managers, facilities managers, and sustainability officers.*

21          (c) *REPORT.—Not later than 1 year after the date of*  
22          *enactment of this Act, the Secretary shall submit to Con-*  
23          *gress a report that describes the results of the study, includ-*  
24          *ing a description of agency best practices in data center*  
25          *consolidation.*

1           **TITLE V—MISCELLANEOUS**

2   **SEC. 501. OFFSETS.**

3           (a) *ZERO-NET ENERGY COMMERCIAL BUILDINGS INI-*  
4 *TIATIVE.*—Section 422(f) of the Energy Independence and  
5 *Security Act of 2007 (42 U.S.C. 17082(f)) is amended by*  
6 *striking paragraphs (2) through (4) and inserting the fol-*  
7 *lowing:*

8                   “(2) \$50,000,000 for each of fiscal years 2009  
9           *through 2012;*

10                   “(3) \$100,000,000 for fiscal year 2013; and

11                   “(4) \$200,000,000 for each of fiscal years 2014  
12           *through 2018.”.*

13           (b) *ENERGY SUSTAINABILITY AND EFFICIENCY*  
14 *GRANTS AND LOANS FOR INSTITUTIONS.*—Subsection (j) of  
15 *section 399A of the Energy Policy and Conservation Act*  
16 *(42 U.S.C. 6371h–1) (as redesignated by section 301(2)) is*  
17 *amended—*

18                   (1) *in paragraph (1), by striking “through*  
19 *2013” and inserting “and 2010, \$100,000,000 for*  
20 *each of fiscal years 2011 and 2012, and \$250,000,000*  
21 *for fiscal year 2013”;* and

22                   (2) *in paragraph (2), by striking “through*  
23 *2013” and inserting “and 2010, \$100,000,000 for*  
24 *each of fiscal years 2011 and 2012, and \$425,000,000*  
25 *for fiscal year 2013”.*

1           (c) *WASTE ENERGY RECOVERY INCENTIVE PRO-*  
2 *GRAM.*—Section 373(f)(1) of the Energy Policy and Con-  
3 *servation Act (42 U.S.C. 6343(f)(1)) is amended—*

4                   (1) *by redesignating subparagraph (B) as sub-*  
5 *paragraph (D); and*

6                   (2) *by striking subparagraph (A) and inserting*  
7 *the following:*

8                           “(A) \$100,000,000 for fiscal year 2008;

9                           “(B) \$200,000,000 for each of fiscal years  
10                           2009 and 2010;

11                           “(C) \$100,000,000 for each of fiscal years  
12                           2011 and 2012; and”.

13           (d) *ENERGY-INTENSIVE INDUSTRIES PROGRAM.*—Sec-  
14 *tion 452(f)(1) of the Energy Independence and Security Act*  
15 *of 2007 (42 U.S.C. 17111(f)(1)) is amended—*

16                   (1) *in subparagraph (D), by striking*  
17 *“\$202,000,000” and inserting “\$102,000,000”; and*

18                   (2) *in subparagraph (E), by striking*  
19 *“\$208,000,000” and inserting “\$108,000,000”.*

20 **SEC. 502. BUDGETARY EFFECTS.**

21           *The budgetary effects of this Act, for the purpose of*  
22 *complying with the Statutory Pay-As-You-Go-Act of 2010,*  
23 *shall be determined by reference to the latest statement titled*  
24 *“Budgetary Effects of PAYGO Legislation” for this Act,*  
25 *submitted for printing in the Congressional Record by the*

1 *Chairman of the Senate Budget Committee, provided that*  
2 *such statement has been submitted prior to the vote on pas-*  
3 *sage.*

4 **SEC. 503. ADVANCE APPROPRIATIONS REQUIRED.**

5 *The authorization of amounts under this Act and the*  
6 *amendments made by this Act shall be effective for any fis-*  
7 *cal year only to the extent and in the amount provided in*  
8 *advance in appropriations Acts.*

**Calendar No. 151**

112<sup>TH</sup> CONGRESS  
1<sup>ST</sup> Session

**S. 1000**

[Report No. 112-71]

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**A BILL**

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

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SEPTEMBER 6, 2011

Reported with an amendment