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[Report No. 112–71]

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

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]

A BILL

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

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''Energy Savings and Industrial Competitiveness Act of 2011''.

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

TITLE I—BUILDINGS

Subtitle A—Building Energy Codes

SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING CODES.

(a) IN GENERAL.—Section 304 of the Energy Conservation and Production Act (42 U.S.C. 6833) is amended to read as follows:

"SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.

"(a) UPDATING NATIONAL MODEL BUILDING ENERGY CODES.—

"(1) IN GENERAL.—The Secretary shall—

"(A) support the development of national model building energy codes, including the updating of ASHRAE and IECC model building energy codes and standards;

"(B) encourage and support the adoption of building energy codes by States and, as appropriate, by local governments that meet or exceed the national model building energy codes, or achieve equivalent or greater energy savings; and

"(C) support full compliance with the State and local codes.

"(2) TARGETS AND GOALS.—

"(A) IN GENERAL.—The Secretary shall support the updating of the national model building energy codes for residential buildings and commercial buildings to enable the achievement of energy savings goals established under subparagraph (B) and the targets established under subparagraph (C).

"(B) GOALS.—The Secretary shall—

"(i) establish goals of zero-net-energy for new commercial and residential buildings by 2030; and

"(ii) work with State and local governments, the International Code Council, ASHRAE, and other interested parties to achieve these goals through a combination of national model building energy codes, appliance and lighting standards, and research, development, and demonstration of new efficiency and clean energy technologies.

"(C) TARGETS.—

"(i) IN GENERAL.—The Secretary shall support the updating of national model building energy codes by establishing 1 or more aggregate energy savings targets to achieve the goals set under subparagraph (B).

"(ii) SEPARATE TARGETS.—The Secretary may establish separate targets for commercial and residential buildings.

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

ASHRAE Standard 90.1–2010 for commercial buildings.

"(iv) SPECIFIC YEARS.—

"(I) IN GENERAL.—Targets for specific years shall be established and revised by the Secretary through rulemaking and coordinated with the IECC and ASHRAE Standard 90.1 cycles at a level that is—

"(aa) at the maximum level of energy efficiency that is technologically feasible and life-cycle cost effective, while accounting for the economic considerations under subparagraph (E);

"(bb) higher than the preceding target; and

"(cc) on a path to achieving zero-net-energy buildings.

"(II) INITIAL TARGETS.—Not later than 1 year after the date of enactment of this clause, the Secretary shall establish initial targets under this subparagraph.

"(III) DIFFERENT TARGET YEARS.—Subject to subclause (I), prior to the applicable year, the Secretary may set a different target year for any of model codes described in clause (i) if the Secretary determines that a higher target cannot be met.

"(IV) SMALL BUSINESS.—When establishing targets under this subparagraph through rulemaking, the Secretary shall ensure compliance with the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 601 note; Public Law 104–121).

"(D) APPLIANCE STANDARDS AND OTHER FACTORS AFFECTING BUILDING ENERGY USE.—In establishing building code targets under subparagraph (C), the Secretary shall develop and adjust the targets in recognition of potential savings and costs relating to—

"(i) efficiency gains made in appliances, lighting, windows, and insulation;

''(ii) advancement of distributed generation and on-site renewable power generation technologies;

''(iii) equipment improvements for heating, cooling, and ventilation systems;

''(iv) building management systems and SmartGrid technologies to reduce energy use; and

''(v) other technologies, practices, and building systems that the Secretary considers appropriate regarding building plug load and other energy uses.

''(E) ECONOMIC CONSIDERATIONS.—In establishing and revising building code targets under subparagraph (C), the Secretary shall consider the economic feasibility of achieving the proposed targets established under this section and the potential costs and savings for consumers and building owners, including a return on investment analysis.

''(3) TECHNICAL ASSISTANCE TO MODEL CODE-SETTING AND STANDARD DEVELOPMENT ORGANIZATIONS.—

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

to model code-setting and standard development organizations.

''(B) ASSISTANCE.—The assistance shall include, as requested by the organizations, technical assistance in—

''(i) evaluating code or standards proposals or revisions;

''(ii) building energy analysis and design tools;

''(iii) building demonstrations;

''(iv) developing definitions of energy use intensity and building types for use in model codes or in evaluating the efficiency impacts of the codes;

''(v) performance-based standards; and

''(vi) evaluating economic considerations under paragraph (2)(E).

''(C) AMENDMENT PROPOSALS.—The Secretary may submit timely code and standard amendment proposals to the model code-setting and standard development organizations, with supporting evidence, sufficient to enable the model building energy codes and standards to

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

''(D) ANALYSIS METHODOLOGY.—The Secretary shall make publicly available the entire calculation methodology (including input assumptions and data) used by the Secretary to estimate the energy savings of code or standard proposals and revisions.

''(4) DETERMINATION AND ESTABLISHMENT.—

''(A) REVISION OF MODEL BUILDING CODES AND STANDARDS.—If the provisions of the IECC or ASHRAE Standard 90.1 regarding building energy use are revised, the Secretary shall make a preliminary determination not later than 90 days after the date of the revision, and a final determination not later than 1 year after the date of the revision, on whether the revision will—

''(i) improve energy efficiency in buildings compared to the existing national model building energy code; and

''(ii) meet the applicable targets under paragraph (2)(C).

''(B) CODES OR STANDARDS NOT MEETING TARGETS.—

"(i) IN GENERAL.—If the Secretary makes a preliminary determination under subparagraph (A)(ii) that a code or standard does not meet the targets established under paragraph (2)(C), the Secretary may at the same time provide the model code or standard developer with proposed changes that would result in a model code that meets the targets and with supporting evidence, taking into consideration—

"(I) whether the modified code is technically feasible and life-cycle cost effective;

"(II) available appliances, technologies, materials, and construction practices; and

"(III) potential costs, savings and other benefits for consumers and building owners, including the impact on overall building ownership and operating costs.

"(ii) INCORPORATION OF CHANGES.—

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

additional 180 days to incorporate changes into the model code or standard.

"(II) FINAL DETERMINATION.—A final determination under subparagraph (A) shall be on the modified model code or standard.

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

"(D) ESTABLISHMENT BY SECRETARY.—

"(i) IN GENERAL.—If the Secretary makes a negative final determination under subparagraph (A)(ii), the Secretary shall at the same time establish a modified national model building energy code.

"(ii) CODES OR STANDARDS NOT UPDATED.—If the IECC or ASHRAE Standard 90.1 is not revised by a target date under paragraph (2), the Secretary shall,

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

''(iii) REQUIREMENTS.—Any national model building energy code established under this subparagraph shall—

''(I) meet the targets established under paragraph (2);

''(II) achieve the maximum level of energy savings that is technologically feasible and life-cycle cost-effective, while accounting for the economic considerations under paragraph (2)(E); and

''(III) be based on the latest edition of the IECC or ASHRAE Standard 90.1, including any subsequent amendments, addenda, or additions, but may also consider other model codes or standards.

''(5) ADMINISTRATION.—In carrying out this section, the Secretary shall—

"(A) publish notice of targets, determinations, and national model building energy codes under this section in the Federal Register to provide an explanation of and the basis for such actions, including any supporting modeling, data, assumptions, protocols, and cost-benefit analysis, including return on investment; and

"(B) provide an opportunity for public comment on targets, determinations, and national model building energy codes under this section.

"(b) STATE CERTIFICATION OF BUILDING ENERGY CODE UPDATES.—

"(1) REVIEW AND UPDATING OF CODES BY EACH STATE.—

"(A) IN GENERAL.—Not later than 2 years after the date on which a national model building energy code is established or revised under subsection (a), each State shall certify whether or not the State has reviewed and updated the energy provisions of the building code of the State.

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

the code provisions that are in effect throughout the State—

"(i) meet or exceed the revised model code; or

"(ii) achieve equivalent or greater energy savings.

"(C) NO MODEL CODE UPDATE.—If the Secretary fails to revise a national model building energy code by the date specified in subsection (a)(4), each State shall, not later than 2 years after the specified date, certify whether or not the State has reviewed and updated the energy provisions of the building code of the State to meet or exceed the target in subsection (a)(2).

"(2) VALIDATION BY SECRETARY.—Not later than 90 days after a State certification under paragraph (1), the Secretary shall—

"(A) determine whether the code provisions of the State meet the criteria specified in paragraph (1); and

"(B) if the determination is positive, validate the certification.

"(c) IMPROVEMENTS IN COMPLIANCE WITH BUILDING ENERGY CODES.—

"(1) REQUIREMENT.—

"(A) IN GENERAL.—Not later than 3 years after the date of a certification under subsection (b), each State shall certify whether or not the State has—

"(i) achieved full compliance under paragraph (3) with the certified State building energy code or with the associated national model building energy code; or

"(ii) made significant progress under paragraph (4) toward achieving compliance with the certified State building energy code or with the associated national model building energy code.

"(B) REPEAT CERTIFICATIONS.—If the State certifies progress toward achieving compliance, the State shall repeat the certification until the State certifies that the State has achieved full compliance.

"(2) MEASUREMENT OF COMPLIANCE.—A certification under paragraph (1) shall include documentation of the rate of compliance based on—

"(A) independent inspections of a random sample of the buildings covered by the code in the preceding year; or

"(B) an alternative method that yields an accurate measure of compliance.

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

"(A) at least 90 percent of building space covered by the code in the preceding year substantially meets all the requirements of the applicable code specified in paragraph (1), or achieves equivalent or greater energy savings level; or

"(B) the estimated excess energy use of buildings that did not meet the applicable code specified in paragraph (1) in the preceding year, compared to a baseline of comparable buildings that meet this code, is not more than 5 percent of the estimated energy use of all buildings covered by this code during the preceding year.

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

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

"(B) has met the most recent target under subparagraph (A).

"(5) VALIDATION BY SECRETARY.—Not later than 90 days after a State certification under paragraph (1), the Secretary shall—

"(A) determine whether the State has demonstrated meeting the criteria of this subsection, including accurate measurement of compliance; and

"(B) if the determination is positive, validate the certification.

"(d) STATES THAT DO NOT MEET TARGETS.—

"(1) REPORTING.—A State that has not made a certification required under subsection (b) or (c) by the applicable deadline shall submit to the Secretary a report on—

"(A) the status of the State with respect to meeting the requirements and submitting the certification; and

"(B) a plan for meeting the requirements and submitting the certification.

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

"(3) LOCAL GOVERNMENT.—In any State that is out of conformance with this section, a local government may be considered in conformance with this section by meeting the certification requirements under subsections (b) and (c).

"(4) FEDERAL SUPPORT.—The Secretary shall, as appropriate, make conformance of a jurisdiction with this section a criterion in grants or other support for code adoption and compliance activities for State and local governments.

"(5) ANNUAL REPORTS BY SECRETARY.—

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

"(i) the status of national model building energy codes;

‘‘(ii) the status of code adoption and compliance in the States;

‘‘(iii) implementation of this section; and

‘‘(iv) improvements in energy savings over time as result of the goals established under subsection (a)(2)(B) and targets established under subsection (a)(2)(C).

‘‘(B) IMPACTS.—The report shall include estimates of impacts of past action under this section, and potential impacts of further action, on—

‘‘(i) upfront financial and construction costs, cost benefits and returns (using investment analysis), and lifetime energy use for buildings;

‘‘(ii) resulting energy costs to individuals and businesses; and

‘‘(iii) resulting overall annual building ownership and operating costs.

‘‘(c) TECHNICAL ASSISTANCE TO STATES.—The Secretary shall provide technical assistance to States to implement the requirements of this section, including procedures and technical analysis for States—

"(1) to demonstrate that the code provisions of the States achieve equivalent or greater energy savings than the national model building energy codes;

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

"(3) to improve and implement State residential and commercial building energy codes or otherwise promote the design and construction of energy efficient buildings.

"(f) AVAILABILITY OF INCENTIVE FUNDING.—

"(1) IN GENERAL.—The Secretary shall provide incentive funding to States—

"(A) to implement the requirements of this section;

"(B) to improve and implement residential and commercial building energy codes, including increasing and verifying compliance with the codes and training of State and local building code officials to implement and enforce the codes; and

"(C) to promote building energy efficiency through the use of the codes.

"(2) ADDITIONAL FUNDING.—Additional funding shall be provided under this subsection for implementation of a plan to achieve and document full

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

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

"(B) in a State which is not eligible under subparagraph (A), to a local government that is in conformance with this section under subsection (d)(3).

"(3) TRAINING.—Of the amounts made available under this subsection, the State may use amounts required, but not to exceed $750,000 for a State, to train State and local building code officials to implement and enforce codes described in paragraph (2).

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

"(g) VOLUNTARY ADVANCED STANDARDS.—

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

"(A) green building design;

"(B) voluntary and market transformation programs;

~~"(C) incentive criteria; and~~

~~"(D) voluntary adoption by States.~~

~~"(2) TARGETS.—The voluntary advanced standards shall be designed to achieve energy savings of at least 30 percent compared to the national model building energy codes.~~

~~"(3) PREFERENCE.—In carrying out this subsection, the Secretary shall give preference to advanced standards developed by the International Code Council and by ASHRAE.~~

~~"(h) STUDIES.—The Secretary, in consultation with building science experts from the National Laboratories and institutions of higher education, designers and builders of energy-efficient residential and commercial buildings, code officials, and other stakeholders, shall undertake a study of the feasibility, impact, and merit of—~~

~~"(1) code improvements that would require that buildings be designed, sited, and constructed in a manner that makes the buildings more adaptable in the future to become zero-net-energy after initial construction, as advances are achieved in energy-saving technologies;~~

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

''(3) legislative options for increasing energy savings from building energy codes, including additional incentives for effective State and local action, and verification of compliance with and enforcement of a code other than by a State or local government.

''(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection—

''(1) $100,000,000 for each of fiscal years 2012 through 2015; and

''(2) such sums as are necessary for fiscal year 2016 and each fiscal year thereafter.''.

(b) DEFINITION OF IECC.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended by adding at the end the following:

''(17) IECC.—The term 'IECC' means the International Energy Conservation Code.''.

Subtitle B—Appliance Standards

SEC. 111. ENERGY CONSERVATION STANDARDS.

(a) DEFINITION OF ENERGY CONSERVATION STANDARD.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended—

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

''(6) ENERGY CONSERVATION STANDARD.—

"(A) IN GENERAL.—The term 'energy conservation standard' means 1 or more performance standards that—

"(i) for covered products (excluding clothes washers, dishwashers, showerheads, faucets, water closets, and urinals), prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323;

"(ii) for showerheads, faucets, water closets, and urinals, prescribe a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with test procedures prescribed under section 323; and

"(iii) for clothes washers and dishwashers—

"(I) prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323; and

"(II) include a minimum level of water efficiency or a maximum quan-

tity of water use, determined in accordance with those test procedures.

''(B) INCLUSIONS.—The term 'energy conservation standard' includes—

''(i) 1 or more design requirements, if the requirements were established—

''(I) on or before the date of enactment of this subclause;

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

''(III) as part of a final rule published on or after January 1, 2012; and

''(ii) any other requirements that the Secretary may prescribe under section 325(r).

''(C) EXCLUSION.—The term 'energy conservation standard' does not include a performance standard for a component of a finished covered product, unless regulation of the component is specifically authorized or established pursuant to this title.''; and

(2) by adding at the end the following:

''(67) EER.—The term 'EER' means energy efficiency ratio.

''(68) HSPF.—The term 'HSPF' means heating seasonal performance factor.''.

(b) EER AND HSPF TEST PROCEDURES.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)) is amended by adding at the end the following:

''(19) EER AND HSPF TEST PROCEDURES.—

''(A) IN GENERAL.—Subject to subparagraph (B), for purposes of residential central air conditioner and heat pump standards that take effect on or before January 1, 2015—

''(i) the EER shall be tested at an outdoor test temperature of 95 degrees Fahrenheit; and

''(ii) the HSPF shall be calculated based on Region IV conditions.

''(B) REVISIONS.—The Secretary may revise the EER outdoor test temperature and the conditions for HSPF calculations as part of any rulemaking to revise the central air conditioner and heat pump test method.''.

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

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

"(A) BASE NATIONAL STANDARDS.—

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

"(I) Split Systems: 13 for central air conditioners and 14 for heat pumps.

"(II) Single Package Systems: 14.

"(ii) HEATING SEASONAL PERFORMANCE FACTOR.—The heating seasonal performance factor of central air conditioning heat pumps manufactured on or after January 1, 2015, shall not be less than the following:

"(I) Split Systems: 8.2.

“(II) Single Package Systems: 8.0.

“(B) REGIONAL STANDARDS.—

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

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

~~"(II) Single Package Systems: 14.~~

~~"(ii) ENERGY EFFICIENCY RATIO.—The energy efficiency ratio of central air conditioners (not including heat pumps) manufactured on or after January 1, 2015, and installed in the State of Arizona, California, New Mexico, or Nevada shall be not less than the following:~~

~~"(I) Split Systems: 12.2 for split systems having a rated cooling capacity less than 45,000 BTU per hour and 11.7 for products having a rated cooling capacity equal to or greater than 45,000 BTU per hour.~~

~~"(II) Single Package Systems: 11.0.~~

~~"(iii) APPLICATION OF SUBSECTION (o)(6).—Subsection (o)(6) shall apply to the regional standards set forth in this subparagraph.~~

~~"(C) AMENDMENT OF STANDARDS.—~~

~~"(i) IN GENERAL.—Not later than January 1, 2017, the Secretary shall publish a final rule to determine whether the~~

standards in effect for central air conditioners and central air conditioning heat pumps should be amended.

"(ii) APPLICATION.—The rule shall provide that any amendments shall apply to products manufactured on or after January 1, 2022.

"(D) CONSIDERATION OF ADDITIONAL PERFORMANCE STANDARDS OR EFFICIENCY CRITERIA.—

"(i) FORUM.—Not later than 4 years in advance of the expected publication date of a final rule for central air conditioners and heat pumps under subparagraph (C), the Secretary shall convene and facilitate a forum for interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of the covered product, States, and efficiency advocates), as determined by the Secretary, to consider adding additional performance standards or efficiency criteria in the forthcoming rule.

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

forum, the Secretary receives a recommendation submitted jointly by such representative interested persons to add 1 or more performance standards or efficiency criteria, the Secretary shall incorporate the performance standards or efficiency criteria in the rulemaking process, and, if justified under the criteria established in this section, incorporate such performance standards or efficiency criteria in the revised standard.

''(iii) NO RECOMMENDATION.—If no such joint recommendation is made within 1 year of the initial convening of such a forum, the Secretary may add additional performance standards or efficiency criteria if the Secretary finds that the benefits substantially exceed the burdens of the action.

''(E) NEW CONSTRUCTION LEVELS.—

''(i) IN GENERAL.—As part of any final rule concerning central air conditioner and heat pump standards published after June 1, 2013, the Secretary shall determine if the building code levels specified

in section 327(f)(3)(C) should be amended subject to meeting the criteria of subsection (o) when applied specifically to new construction.

''(ii) EFFECTIVE DATE.—Any amended levels shall not take effect before January 1, 2018.

''(iii) AMENDED LEVELS.—The final rule shall contain the amended levels, if any.''.

(d) THROUGH-THE-WALL CENTRAL AIR CONDITIONERS, THROUGH-THE-WALL CENTRAL AIR CONDITIONING HEAT PUMPS, AND SMALL DUCT, HIGH VELOCITY SYSTEMS.—Section 325(d) of the Energy Policy and Conservation Act (42 U.S.C. 6295(d)) (as amended by subsection (c)) is amended by adding at the end the following:

''(5) STANDARDS FOR THROUGH-THE-WALL CENTRAL AIR CONDITIONERS, THROUGH-THE-WALL CENTRAL AIR CONDITIONING HEAT PUMPS, AND SMALL DUCT, HIGH VELOCITY SYSTEMS.—

''(A) DEFINITIONS.—In this paragraph:

''(i) SMALL DUCT, HIGH VELOCITY SYSTEM.—The term 'small duct, high velocity system' means a heating and cooling

product that contains a blower and indoor coil combination that—

"(I) is designed for, and produces, at least 1.2 inches of external static pressure when operated at the certified air volume rate of 220–350 CFM per rated ton of cooling; and

"(II) when applied in the field, uses high velocity room outlets generally greater than 1,000 fpm that have less than 6.0 square inches of free area.

"(ii) THROUGH-THE-WALL CENTRAL AIR CONDITIONER; THROUGH-THE-WALL CENTRAL AIR CONDITIONING HEAT PUMP.—The terms 'through-the-wall central air conditioner' and 'through-the-wall central air conditioning heat pump' mean a central air conditioner or heat pump, respectively, that is designed to be installed totally or partially within a fixed-size opening in an exterior wall, and—

"(I) is not weatherized;

"(II) is clearly and permanently marked for installation only through an exterior wall;

"(III) has a rated cooling capacity no greater than 30,000 Btu/hr;

"(IV) exchanges all of its outdoor air across a single surface of the equipment cabinet; and

"(V) has a combined outdoor air exchange area of less than 800 square inches (split systems) or less than 1,210 square inches (single packaged systems) as measured on the surface area described in subclause (IV).

"(iii) REVISION.—The Secretary may revise the definitions contained in this subparagraph through publication of a final rule.

"(B) SMALL-DUCT HIGH-VELOCITY SYSTEMS.—

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

manufactured on or after January 23, 2006.

''(ii) HEATING SEASONAL PERFORMANCE FACTOR.—The heating seasonal performance factor for small-duct high-velocity systems shall be not less than 6.8 for products manufactured on or after January 23, 2006.

''(C) RULEMAKING.—

''(i) IN GENERAL.—Not later than June 30, 2011, the Secretary shall publish a final rule to determine whether standards for through-the-wall central air conditioners, through-the-wall central air conditioning heat pumps and small duct, high velocity systems should be amended.

''(ii) APPLICATION.—The rule shall provide that any new or amended standard shall apply to products manufactured on or after June 30, 2016.''.

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

''(5) NON-WEATHERIZED FURNACES (INCLUDING MOBILE HOME FURNACES, BUT NOT INCLUDING

BOILERS) MANUFACTURED ON OR AFTER MAY 1, 2013, AND WEATHERIZED FURNACES MANUFACTURED ON OR AFTER JANUARY 1, 2015.—

"(A) BASE NATIONAL STANDARDS.—

"(i) NON-WEATHERIZED FURNACES.—The annual fuel utilization efficiency of non-weatherized furnaces manufactured on or after May 1, 2013, shall be not less than the following:

"(I) Gas furnaces, a level determined by the Secretary in a final rule published not later than June 30, 2011.

"(II) Oil furnaces, 83 percent.

"(ii) WEATHERIZED FURNACES.—The annual fuel utilization efficiency of weatherized gas furnaces manufactured on or after January 1, 2015, shall be not less than 81 percent.

"(B) REGIONAL STANDARD.—

"(i) ANNUAL FUEL UTILIZATION EFFICIENCY.—Not later than June 30, 2011, the Secretary shall—

"(I) publish a final rule determining whether to establish a stand-

ard for the annual fuel utilization efficiency of non-weatherized gas furnaces manufactured on or after May 1, 2013, and installed in States having historical average annual, population weighted, heating degree days equal to or greater than 5,000 (specifically the States of Alaska, Colorado, Connecticut, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming); and

"(II) include in the final rule described in subclause (I) any regional standard established under this subparagraph.

"(ii) APPLICATION OF SUBSECTION (o)(6).—Subsection (o)(6) shall apply to

any regional standard established under this subparagraph.

''(C) AMENDMENT OF STANDARDS.—

''(i) NON-WEATHERIZED FURNACES.—

''(I) IN GENERAL.—Not later than January 1, 2014, the Secretary shall publish a final rule to determine whether the standards in effect for non-weatherized furnaces should be amended.

''(II) APPLICATION.—The rule shall provide that any amendments shall apply to products manufactured on or after January 1, 2019.

''(ii) WEATHERIZED FURNACES.—

''(I) IN GENERAL.—Not later than January 1, 2017, the Secretary shall publish a final rule to determine whether the standard in effect for weatherized furnaces should be amended.

''(II) APPLICATION.—The rule shall provide that any amendments shall apply to products manufactured on or after January 1, 2022.

"(D) NEW CONSTRUCTION LEVELS.—

"(i) IN GENERAL.—

"(I) FINAL RULE PUBLISHED AFTER JANUARY 1, 2011.—As part of any final rule concerning furnace standards published after January 1, 2011, the Secretary shall establish the building code levels referred to in subclauses (I)(aa), (II)(aa), and (III)(aa) of section 327(f)(3)(C)(i) subject to meeting the criteria of subsection (o) when applied specifically to new construction.

"(II) FINAL RULE PUBLISHED AFTER JUNE 1, 2013.—As part of any final rule concerning furnace standards published after June 1, 2013, the Secretary shall determine if the building code levels specified in or pursuant to section 327(f)(3)(C) should be amended subject to meeting the criteria of subsection (o) when applied specifically to new construction.

''(ii) EFFECTIVE DATE.—Any amended levels shall not take effect before January 1, 2018.

''(iii) AMENDED LEVELS.—The final rule shall contain the amended levels, if any.''.

(f) EXCEPTION FOR CERTAIN BUILDING CODE REQUIREMENTS.—Section 327(f) of the Energy Policy and Conservation Act (42 U.S.C. 6297(f)) is amended—

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

''(B) The code does not contain a mandatory requirement that, under all code compliance paths, requires that the covered product have an energy efficiency exceeding 1 of the following levels:

''(i) The applicable energy conservation standard established in or prescribed under section 325.

''(ii) The level required by a regulation of the State for which the Secretary has issued a rule granting a waiver under subsection (d).

''(C) If the energy consumption or conservation objective in the code is determined

using covered products, including any baseline building designs against which all submitted building designs are to be evaluated, the objective is based on the use of covered products having efficiencies not exceeding—

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

"(I) for the States described in section 325(f)(5)(B)(i)—

"(aa) for gas furnaces, an AFUE level determined by the Secretary; and

"(bb) 14 SEER for central air conditioners (not including heat pumps);

"(II) for the States and other localities described in section 325(d)(4)(B)(i) (except for the States of Arizona, California, Nevada, and New Mexico)—

~~"(aa) for gas furnaces, an AFUE level determined by the Secretary; and~~

~~"(bb) 15 SEER for central air conditioners;~~

~~"(III) for the States of Arizona, California, Nevada, and New Mexico—~~

~~"(aa) for gas furnaces, an AFUE level determined by the Secretary;~~

~~"(bb) 15 SEER for central air conditioners;~~

~~"(cc) an EER of 12.5 for air conditioners (not including heat pumps) with cooling capacity less than 45,000 Btu per hour; and~~

~~"(dd) an EER of 12.0 for air conditioners (not including heat pumps) with cooling capacity of 45,000 Btu per hour or more; and~~

~~"(IV) for all States—~~

"(aa) 85 percent AFUE for oil furnaces; and

"(bb) 15 SEER and 8.5 HSPF for heat pumps;

"(ii) the building code levels established pursuant to section 325; or

"(iii) the applicable standards or levels specified in subparagraph (B).

"(D) The credit to the energy consumption or conservation objective allowed by the code for installing a covered product having an energy efficiency exceeding the applicable standard or level specified in subparagraph (C) is on a 1-for-1 equivalent energy use or equivalent energy cost basis, which may take into account the typical lifetimes of the products and building features, using lifetimes for covered products based on information published by the Department of Energy or the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

"(E) If the code sets forth 1 or more combinations of items that meet the energy consumption or conservation objective, and if 1 or more combinations specify an efficiency level for

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

"(i) there is at least 1 combination that includes such covered products having efficiencies not exceeding 1 of the standards or levels specified in subparagraph (B); and

"(ii) if 1 or more combinations of items specify an efficiency level for a furnace, central air conditioner, or heat pump that exceeds the applicable standards and levels specified in subparagraph (B), there is at least 1 combination that the State has found to be reasonably achievable using commercially available technologies that includes such products having efficiencies at the applicable levels specified in subparagraph (C), except that no combination need include a product having an efficiency less than the level specified in subparagraph (B)(ii).

"(F) The energy consumption or conservation objective is specified in terms of an estimated total consumption of energy (which may

be specified in units of energy or its equivalent cost).'';

(2) in paragraph (4)(B)—

(A) by inserting after ''building code'' the first place it appears the following: ''contains a mandatory requirement that, under all code compliance paths,''; and

(B) by striking ''unless the'' and all that follows through ''subsection (d)''; and

(3) by adding at the end the following:

''(5) REPLACEMENT OF COVERED PRODUCT.—Paragraph (3) shall not apply to the replacement of a covered product serving an existing building unless the replacement results in an increase in capacity greater than—

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

''(B) 20 percent for other covered products.''.

SEC. 112. ENERGY CONSERVATION STANDARDS FOR HEAT PUMP POOL HEATERS.

(a) DEFINITIONS.—

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

(A) in subparagraph (E), by inserting ''gas-fired'' before ''pool heaters''; and

(B) by adding at the end the following:

''(F) For heat pump pool heaters, coefficient of performance of heat pump pool heaters.''.

(2) COEFFICIENT OF PERFORMANCE OF HEAT PUMP POOL HEATERS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by inserting after paragraph (25) the following:

''(25A) COEFFICIENT OF PERFORMANCE OF HEAT PUMP POOL HEATERS.—The term 'coefficient of performance of heat pump pool heaters' means the ratio of the capacity to power input value obtained at the following rating conditions: 50.0 °F db/44.2 °F wb outdoor air and 80.0 °F entering water temperatures, according to AHRI Standard 1160.''.

(3) THERMAL EFFICIENCY OF GAS-FIRED POOL HEATERS.—Section 321(26) of the Energy Policy and Conservation Act (42 U.S.C. 6291(26)) is amended by inserting ''gas-fired'' before ''pool heaters''.

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

(1) by striking ''(2) The thermal efficiency of pool heaters'' and inserting the following:

''(2) POOL HEATERS.—

''(A) GAS-FIRED POOL HEATERS.—The thermal efficiency of gas-fired pool heaters''; and

(2) by adding at the end the following:

''(B) HEAT PUMP POOL HEATERS.—Heat pump pool heaters manufactured on or after the date of enactment of this subparagraph shall have a minimum coefficient of performance of 4.0.''.

SEC. 113. GU–24 BASE LAMPS.

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

''(69) GU–24.—The term 'GU–24' means the designation of a lamp socket, based on a coding system by the International Electrotechnical Commission, under which—

''(A) 'G' indicates a holder and socket type with 2 or more projecting contacts, such as pins or posts;

''(B) 'U' distinguishes between lamp and holder designs of similar type that are not interchangeable due to electrical or mechanical requirements; and

''(C) 24 indicates the distance in millimeters between the electrical contact posts.

''(70) GU–24 ADAPTOR.—

''(A) IN GENERAL.—The term 'GU–24 Adaptor' means a 1-piece device, pig-tail, wiring harness, or other such socket or base attachment that—

''(i) connects to a GU–24 socket on one end and provides a different type of socket or connection on the other end; and

''(ii) does not alter the voltage.

''(B) EXCLUSION.—The term 'GU–24 Adaptor' does not include a fluorescent ballast with a GU–24 base.

''(71) GU–24 BASE LAMP.—'GU–24 base lamp' means a light bulb designed to fit in a GU–24 socket.''.

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

(1) by redesignating subsection (ii) as subsection (jj); and

(2) by inserting after subsection (hh) the following:

''(ii) GU–24 BASE LAMPS.—

''(1) IN GENERAL.—A GU–24 base lamp shall not be an incandescent lamp as defined by ANSI.

''(2) GU–24 ADAPTORS.—GU–24 adaptors shall not adapt a GU–24 socket to any other line voltage socket.''.

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

(a) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) (as amended by section 113(a)) is amended by adding at the end the following:

''(72) BOTTLE-TYPE WATER DISPENSER.—The term 'bottle-type water dispenser' means a drinking water dispenser that is—

''(A) designed for dispensing hot and cold water; and

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

‘‘(73) COMMERCIAL HOT FOOD HOLDING CABINET.—

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

‘‘(i) is designed to maintain the temperature of hot food that has been cooked in a separate appliance;

‘‘(ii) has 1 or more solid or glass doors; and

‘‘(iii) has an interior volume of 8 cubic feet or more.

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

‘‘(i) a heated glass merchandising cabinet;

‘‘(ii) a drawer warmer;

‘‘(iii) a cook-and-hold appliance; or

‘‘(iv) a mobile serving cart with both hot and cold compartments.

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

water dispenser' means a drinking water dispenser that—

''(A) is designed for dispensing hot and cold water;

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

''(C) includes a refrigerated compartment with or without provisions for making ice.

''(75) PORTABLE ELECTRIC SPA.—

''(A) IN GENERAL.—The term 'portable electric spa' means a factory-built electric spa or hot tub that—

''(i) is intended for the immersion of persons in heated water circulated in a closed system; and

''(ii) is not intended to be drained and filled with each use.

''(B) INCLUSIONS.—The term 'portable electric spa' includes—

''(i) a filter;

''(ii) a heater (including an electric, solar, or gas heater);

''(iii) a pump;

''(iv) a control; and

''(v) other equipment, such as a light, a blower, and water sanitizing equipment.

''(C) EXCLUSIONS.—The term 'portable electric spa' does not include—

''(i) a permanently installed spa that, once installed, cannot be moved; or

''(ii) a spa that is specifically designed and exclusively marketed for medical treatment or physical therapy purposes.

''(76) WATER DISPENSER.—The term 'water dispenser' means a factory-made assembly that—

''(A) mechanically cools and heats potable water; and

''(B) dispenses the cooled or heated water by integral or remote means.''.

(b) COVERAGE.—

(1) IN GENERAL.—Section 322(a) of the Energy Policy and Conservation Act (42 U.S.C. 6292(a)) is amended—

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

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

''(20) Bottle-type water dispensers and compartment bottle-type water dispensers.

''(21) Commercial hot food holding cabinets.

''(22) Portable electric spas.''.

(2) CONFORMING AMENDMENTS.—

(A) Section 324 of the Energy Policy and Conservation Act (42 U.S.C. 6294) is amended by striking ''(19)'' each place it appears in subsections (a)(3), (b)(1)(B), (b)(3), and (b)(5) and inserting ''(23)''.

(B) Section 325(l) of the Energy Policy and Conservation Act (42 U.S.C. 6295(l)) is amended by striking ''paragraph (19)'' each place it appears in paragraphs (1) and (2) and inserting ''paragraph (23)''.

(c) TEST PROCEDURES.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)) (as amended by section 111(b)) is amended by adding at the end the following:

''(20) BOTTLE-TYPE WATER DISPENSERS.—

''(A) IN GENERAL.—Test procedures for bottle-type water dispensers and compartment bottle-type water dispensers shall be based on the document 'Energy Star Program Requirements for Bottled Water Coolers version 1.1' published by the Environmental Protection Agency.

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

"(21) COMMERCIAL HOT FOOD HOLDING CABINETS.—

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

"(B) INTERIOR VOLUME.—Interior volume shall be based under this paragraph on the method demonstrated in the document 'Energy Star Program Requirements for Commercial Hot Food Holding Cabinets' of the Environmental Protection Agency, as in effect on August 15, 2003.

"(22) PORTABLE ELECTRIC SPAS.—

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

"(B) NORMALIZED CONSUMPTION.—Consumption shall be normalized under this paragraph for a water temperature difference of 37 degrees Fahrenheit.

"(C) ANSI TEST PROCEDURE.—If the American National Standards Institute publishes a test procedure for portable electric spas, the Secretary shall revise the procedure established under this paragraph, as determined appropriate by the Secretary.".

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

(1) by redesignating subsection (ii) as subsection (mm); and

(2) by inserting after subsection (hh) the following:

"(ii) BOTTLE-TYPE WATER DISPENSERS.—Effective beginning on the date that is 1 year after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2011—

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

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

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

"(kk) PORTABLE ELECTRIC SPAS.—Effective beginning on the date that is 1 year after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2011, a portable electric spa shall not have a normalized standby power rate of greater than 5 ($V^{2/3}$) Watts (in which 'V' equals the fill volume (in gallons)).

"(ll) REVISIONS.—

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

"(A) consider in accordance with subsection (o) revisions to the standards established under subsections (ii), (jj), and (kk); and

"(B)(i) publish a final rule establishing the revised standards; or

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

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

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

(1) in subsection (b)—

(A) in paragraph (6), by striking ''or'' after the semicolon at the end;

(B) in paragraph (7), by striking the period at the end and inserting ''; or''; and

(C) by adding at the end the following:

''(8) is a regulation that—

''(A) establishes efficiency standards for bottle-type water dispensers, compartment bottle-type water dispensers, commercial hot food holding cabinets, or portable electric spas; and

''(B) is in effect on or before the date of enactment of this paragraph.''; and

(2) in subsection (c)—

(A) in paragraph (8)(B), by striking ''and'' after the semicolon at the end;

(B) in paragraph (9)—

(i) by striking "except that—" and all that follows through "if the Secretary" and inserting "except that if the Secretary";

(ii) by redesignating clauses (i) and (ii) as subparagraphs (A) and (B), respectively, and indenting appropriately; and

(iii) in subparagraph (B) (as so redesignated), by striking the period at the end and inserting "; or"; and

(C) by adding at the end the following:

"(10) is a regulation that—

"(A) establishes efficiency standards for bottle-type water dispensers, compartment bottle-type water dispensers, commercial hot food holding cabinets, or portable electric spas; and

"(B) is adopted by the California Energy Commission on or before January 1, 2013.".

SEC. 115. TEST PROCEDURE PETITION PROCESS.

(a) CONSUMER PRODUCTS OTHER THAN AUTOMOBILES.—Section 323(b)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)(1)) is amended—

(1) in subparagraph (A)(i), by striking "amend" and inserting "publish in the Federal Register amended"; and

(2) by adding at the end the following:

"(B) PETITIONS.—

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

"(I) to prescribe a test procedure for the covered product; or

"(II) to amend the test procedures applicable to the covered product to more accurately or fully comply with paragraph (3).

"(ii) DETERMINATION.—The Secretary shall—

"(I) not later than 90 days after the date of receipt of the petition, publish the petition in the Federal Register; and

"(II) not later than 180 days after the date of receipt of the petition, grant or deny the petition.

"(iii) BASIS.—The Secretary shall grant a petition if the Secretary finds that the petition contains evidence that, assuming no other evidence was considered, provides an adequate basis for determining that an amended test procedure would

more accurately or fully comply with paragraph (3).

"(iv) EFFECT ON OTHER REQUIREMENTS.—The granting of a petition by the Secretary under this subparagraph shall create no presumption with respect to the determination of the Secretary that the proposed test procedure meets the requirements of paragraph (3).

"(v) RULEMAKING.—

"(I) IN GENERAL.—Except as provided in subclause (II), not later than the end of the 18-month period beginning on the date of granting a petition, the Secretary shall publish an amended test procedure or a determination not to amend the test procedure.

"(II) EXTENSION.—The Secretary may extend the period described in subclause (I) for 1 additional year.

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

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

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

"(D) NEW OR AMENDED TEST PROCEDURES.—The Secretary shall direct the National Institute of Standards and Technology to assist in developing new or amended test procedures.".

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

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

"(1) AMENDMENT AND PETITION PROCESS.—

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

"(i) publish in the Federal Register amended test procedures with respect to any covered equipment, if the Secretary determines that amended test procedures

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

"(ii) publish notice in the Federal Register of any determination not to amend a test procedure.

"(B) PETITIONS.—

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

"(I) to prescribe a test procedure for the covered equipment; or

"(II) to amend the test procedures applicable to the covered equipment to more accurately or fully comply with paragraphs (2) and (3).

"(ii) DETERMINATION.—The Secretary shall—

"(I) not later than 90 days after the date of receipt of the petition, publish the petition in the Federal Register; and

"(II) not later than 180 days after the date of receipt of the petition, grant or deny the petition.

"(iii) BASIS.—The Secretary shall grant a petition if the Secretary finds that the petition contains evidence that, assuming no other evidence was considered, provides an adequate basis for determining that an amended test method would more accurately promote energy or water use efficiency.

"(iv) EFFECT ON OTHER REQUIREMENTS.—The granting of a petition by the Secretary under this paragraph shall create no presumption with respect to the determination of the Secretary that the proposed test procedure meets the requirements of paragraphs (2) and (3).

"(v) RULEMAKING.—

"(I) IN GENERAL.—Except as provided in subclause (II), not later than the end of the 18-month period beginning on the date of granting a petition, the Secretary shall publish an amended test method or a determination not to amend the test method.

"(II) EXTENSION.—The Secretary may extend the period described in subclause (I) for 1 additional year.

"(III) DIRECT FINAL RULE.—The Secretary may adopt a consensus test procedure in accordance with the direct final rule procedure established under section 325(p).";

(2) by striking subsection (c); and

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

SEC. 116. AMENDMENTS TO HOME APPLIANCE TEST METHODS.

Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293(b)) (as amended by section 114(c)) is amended by adding at the end the following:

"(23) REFRIGERATOR AND FREEZER TEST PROCEDURE.—

"(A) IN GENERAL.—Not later than 90 days after the date on which the Secretary publishes the final standard rule that was proposed on September 27, 2010, the Secretary shall finalize the interim final test procedure rule proposed on December 16, 2010, with such subse-

quent modifications to the test procedure or standards as the Secretary determines to be appropriate and consistent with this part.

"(B) RULEMAKING.—

"(i) INITIATION.—Not later than January 1, 2012, the Secretary shall initiate a rulemaking to amend the test procedure described in subparagraph (A) only to incorporate measured automatic icemaker energy use.

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

"(24) ADDITIONAL HOME APPLIANCE TEST PROCEDURES.—

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

"(B) AMENDED TEST PROCEDURE FOR CLOTHES DRYERS.—

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

this paragraph, the Secretary shall publish an amended test procedure for clothes dryers.

"(ii) REQUIREMENT.—The amendments to the test procedure shall be limited to modifications requiring that tested dryers are run until the cycle (including cool down) is ended by automatic termination controls, if equipped with those controls.".

SEC. 117. CREDIT FOR ENERGY STAR SMART APPLIANCES.

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

"(c) CREDIT FOR SMART APPLIANCES.—Not later than 180 days after the date of enactment of this subsection, after soliciting comments pursuant to subsection (c)(5), the Administrator of the Environmental Protection Agency, in cooperation with the Secretary, shall determine whether to update the Energy Star criteria for residential refrigerators, refrigerator-freezers, freezers, dishwashers, clothes washers, clothes dryers, and room air conditioners to incorporate smart grid and demand response features.".

SEC. 118. VIDEO GAME CONSOLE ENERGY EFFICIENCY STUDY.

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

"SEC. 324B. VIDEO GAME CONSOLE ENERGY EFFICIENCY STUDY.

"(a) INITIAL STUDY.—

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

"(A) video game console energy use; and

"(B) opportunities for energy savings regarding that energy use.

"(2) INCLUSIONS.—The study under paragraph (1) shall include an assessment of all power-consuming modes and media playback modes of video game consoles.

"(b) ACTION ON COMPLETION.—On completion of the initial study under subsection (a), the Secretary shall determine, by regulation, using the criteria and procedures described in section 325(n)(2), whether to initiate a process for establishing minimum energy efficiency standards for video game console energy use.

"(c) FOLLOW-UP STUDY.—If the Secretary determines under subsection (b) that standards should not be

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

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

SEC. 119. REFRIGERATOR AND FREEZER STANDARDS.

Section 325(b) of the Energy Policy and Conservation Act (42 U.S.C. 6295(b)) is amended by striking paragraph (4) and inserting the following:

''(4) REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS MANUFACTURED AS OF JANUARY 1, 2014.—

''(A) DEFINITION OF BUILT-IN PRODUCT CLASS.—In this paragraph, the term 'built-in product class' means a refrigerator, freezer, or refrigerator with a freezer unit that—

''(i) is 7.75 cubic feet or greater in total volume and 24 inches or less in cabinet depth (not including doors, handles, and custom front panels);

‘‘(ii) is designed to be totally encased by cabinetry or panels attached during installation;

‘‘(iii) is designed to accept a custom front panel or to be equipped with an integral factory-finished face;

‘‘(iv) is designed to be securely fastened to adjacent cabinetry, walls, or floors; and

‘‘(v) has 2 or more sides that are not—

‘‘(I) fully finished; and

‘‘(II) intended to be visible after installation.

‘‘(B) MAXIMUM ENERGY USE.—

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

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

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

''Standards Equations	
Product Description	
Automatic Defrost Refrigerator-Freezers	
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
Manual & Partial Automatic Refrigerator-Freezers	
Manual Defrost	7.06 AV+ 198.7
Partial Automatic	7.06 AV+ 198.7
All Refrigerators	
Manual Defrost	7.06 AV+ 198.7
Automatic Defrost	7.35 AV+ 207.0
All Freezers	
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
Automatic Defrost Refrigerator-Freezers–Compact Size	
Top Freezer and Bottom Freezer	10.80 AV+ 301.8

Side Freezer	6.08 AV+ 400.8
Manual & Partial Automatic Refrigerator-Freezers–Compact Size	
Manual Defrost	8.03 AV+ 224.3
Partial Automatic	5.25 AV+ 298.5
All Refrigerators–Compact Size	
Manual defrost	8.03 AV+ 224.3
Automatic defrost	9.53 AV+ 266.3
All Freezers–Compact Size	
Upright with manual defrost	8.80 AV+ 225.7
Upright with automatic defrost	10.26 AV+ 351.9
Chest	9.41 AV+ 136.8
Automatic Defrost Refrigerator-Freezers–Built-ins	
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
All Refrigerators–Built-ins	
Automatic Defrost	7.84 AV+ 220.8
All Freezers–Built-ins	
Upright with automatic defrost	9.32 AV+ 244.6.

''(iii) FINAL RULES.—

''(I) IN GENERAL.—Except as provided in subclause (II), after the date of publication of each test procedure change made pursuant to section 323(b)(23), in accordance with the

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

"(II) EXCEPTION.—The standards amendment made pursuant to the test procedure change required under section 323(b)(23)(B) shall be based on the difference between—

"(aa) the average measured automatic ice maker energy use of a representative sample for each product class; and

"(bb) the value assumed by the Department of Energy for ice maker energy use in the test procedure published pursuant to section 323(b)(23)(A).

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

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

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

"(I) the date of enactment of this clause; or

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

"(v) NEW PRODUCT CLASSES.—The Secretary may establish 1 or more new product classes as part of the final amended standard adopted pursuant to the test procedure change required under section 323(b)(23)(B) if the 1 or more new product classes are needed to distinguish among products with automatic icemakers.

"(vi) EFFECTIVE DATES OF STANDARDS.—

"(I) STANDARDS AMENDMENT FOR FIRST REVISED TEST PROCEDURE.—A standards amendment adopted pursuant to a test procedure change required under section 323(b)(23)(A) shall apply to any product manufactured as of January 1, 2014.

"(II) STANDARDS AMENDMENT AFTER REVISED TEST PROCEDURE FOR ICEMAKER ENERGY.—An amendment adopted pursuant to a test procedure change required under section 323(b)(23)(B) shall apply to any product manufactured as of the date that is 3 years after the date of publication of the final rule amending the standards.

"(vii) SLOPE AND INTERCEPT ADJUSTMENTS.—

"(I) IN GENERAL.—With respect to refrigerators, freezers, and refrigerator-freezers, the Secretary may, by rule, adjust the slope and intercept of the equations specified in the table contained in clause (ii)—

"(aa) based on the energy use of typical products of various sizes in a product class; and

"(bb) if the average energy use for each of the classes is the same under the new equations as

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

''(II) DEADLINE.—If the Secretary adjusts the slope and intercept of an equation described in subclause (I), the Secretary shall publish the final rule containing the adjustment by not later than July 1, 2011.

''(viii) EFFECT.—A final rule published under clause (iii) pursuant to the test procedure change required under section 323(b)(23)(B) or pursuant to clause (iv) shall not be considered to be an amendment to the standard for purposes of section 325(m).''.

SEC. 120. ROOM AIR CONDITIONER STANDARDS.

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

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

''(A) IN GENERAL.—Based on the test procedure in effect on July 9, 2010, the minimum energy efficiency ratios of room air conditioners

manufactured on or after June 1, 2014, shall not be less than that specified in the table contained in subparagraph (B).

''(B) MINIMUM ENERGY EFFICIENCY RATIOS.—The minimum energy efficiency ratios referred to in subparagraph (A) are as follows:

''Product Description	Minimum EER
Without Reverse Cycle w/Louvers	
<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
Without Reverse Cycle w/o Louvers	
<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
With Reverse Cycle	
<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
Casement	

''Product Description	Minimum EER
Casement Only	9.6
Casement Slider	10.5.

''(C) FINAL RULE.—

''(i) IN GENERAL.—Not later than July 1, 2011, pursuant to the test procedure adopted by the Secretary on January 6, 2011, the Secretary shall amend the standards specified in the table contained in subparagraph (B) in accordance with the procedures described in section 323(e)(2).

''(ii) STANDBY AND OFF MODE ENERGY CONSUMPTION.—

''(I) IN GENERAL.—The Secretary shall integrate standby and off mode energy consumption into the amended energy efficiency ratios standards required under clause (i).

''(II) REQUIREMENTS.—The amended standards described in subclause (I) shall reflect the levels of standby and off mode energy consumption that meet the criteria described in section 325(o).

"(iii) APPLICABILITY.—

"(I) AMENDMENT OF STANDARD.—Section 323(e)(3) shall not apply to the amended standards described in clause (i).

"(II) AMENDED STANDARDS.—The amended standards required by this subparagraph shall apply to products manufactured on or after June 1, 2014.".

SEC. 121. UNIFORM EFFICIENCY DESCRIPTOR FOR COVERED WATER HEATERS.

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

"(5) UNIFORM EFFICIENCY DESCRIPTOR FOR COVERED WATER HEATERS.—

"(A) DEFINITIONS.—In this paragraph:

"(i) COVERED WATER HEATER.—The term 'covered water heater' means—

"(I) a water heater; and

"(II) a storage water heater, instantaneous water heater, and unfired water storage tank (as defined in section 340).

''(ii) FINAL RULE.—The term 'final rule' means the final rule published under this paragraph.

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

''(C) PURPOSE.—The purpose of the final rule shall be to replace with a uniform efficiency descriptor—

''(i) the energy factor descriptor for water heaters established under this subsection; and

''(ii) the thermal efficiency and standby loss descriptors for storage water heaters, instantaneous water heaters, and unfired water storage tanks established under section 342(a)(5).

''(D) EFFECT OF FINAL RULE.—

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

water heaters shall be denominated according to the efficiency descriptor established by the final rule.

''(ii) EFFECTIVE DATE.—The final rule shall take effect 1 year after the date of publication of the final rule under subparagraph (B).

''(E) CONVERSION FACTOR.—

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

''(ii) APPLICATION.—The conversion factor shall apply to models of covered water heaters affected by the final rule and tested prior to the effective date of the final rule.

''(iii) EFFECT ON EFFICIENCY REQUIREMENTS.—The conversion factor shall not affect the minimum efficiency require-

ments for covered water heaters otherwise established under this title.

''(iv) USE.—During the period described in clause (v), a manufacturer may apply the conversion factor established by the Secretary to rerate existing models of covered water heaters that are in existence prior to the effective date of the rule described in clause (v)(II) to comply with the new efficiency descriptor.

''(v) PERIOD.—Subclause (E) shall apply during the period—

''(I) beginning on the date of publication of the conversion factor in the Federal Register; and

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

''(F) EXCLUSIONS.—The final rule may exclude a specific category of covered water heaters from the uniform efficiency descriptor established under this paragraph if the Secretary determines that the category of water heaters—

''(i) does not have a residential use and can be clearly described in the final rule; and

‘‘(ii) are effectively rated using the thermal efficiency and standby loss descriptors applied (on the date of enactment of this paragraph) to the category under section 342(a)(5).

‘‘(G) OPTIONS.—The descriptor set by the final rule may be—

‘‘(i) a revised version of the energy factor descriptor in use on the date of enactment of this paragraph;

‘‘(ii) the thermal efficiency and standby loss descriptors in use on that date;

‘‘(iii) a revised version of the thermal efficiency and standby loss descriptors;

‘‘(iv) a hybrid of descriptors; or

‘‘(v) a new approach.

‘‘(H) APPLICATION.—The efficiency descriptor and accompanying test method established under the final rule shall apply, to the maximum extent practicable, to all water heating technologies in use on the date of enactment of this paragraph and to future water heating technologies.

‘‘(I) PARTICIPATION.—The Secretary shall invite interested stakeholders to participate in

the rulemaking process used to establish the final rule.

''(J) TESTING OF ALTERNATIVE DESCRIPTORS.—In establishing the final rule, the Secretary shall contract with the National Institute of Standards and Technology, as necessary, to conduct testing and simulation of alternative descriptors identified for consideration.

''(K) EXISTING COVERED WATER HEATERS.—A covered water heater shall be considered to comply with the final rule on and after the effective date of the final rule and with any revised labeling requirements established by the Federal Trade Commission to carry out the final rule if the covered water heater—

''(i) was manufactured prior to the effective date of the final rule; and

''(ii) complied with the efficiency standards and labeling requirements in effect prior to the final rule.''.

SEC. 122. CLOTHES DRYERS.

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

"(D) MINIMUM ENERGY FACTORS FOR CLOTHES DRYERS.—

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

"(ii) NEW STANDARDS.—The minimum energy factors referred to in clause (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.

"(iii) FINAL RULE.—

"(I) REQUIREMENTS.—

"(aa) IN GENERAL.—The final rule to amend the clothes dryer test procedure adopted pursuant to section 323(b)(24)(B) shall amend the energy factors

standards specified in the table contained in clause (ii) in accordance with the procedures described in section 323(e)(2).

"(bb) REPRESENTATIVE SAMPLE.—To establish a representative sample of compliant products, the Secretary shall select a sample of minimally compliant dryers that automatically terminate the drying cycle at not less than 4 percent remaining moisture content.

"(II) STANDBY AND OFF MODE ENERGY CONSUMPTION.—

"(aa) INTEGRATION.—The Secretary shall integrate standby and off mode energy consumption into the amended standards required under subclause (I).

"(bb) REQUIREMENTS.—The amended standards described in item (aa) shall reflect levels of standby and off mode energy consumption that meet

the criteria described in section 325(o).

''(III) APPLICABILITY.—

''(aa) AMENDMENT OF STANDARD.—Section 323(e)(3) shall not apply to the amended standards described in subclause (I).

''(bb) AMENDED STANDARDS.—The amended standards required by this clause shall apply to products manufactured on or after January 1, 2015.

''(iv) OTHER STANDARDS.—Any dryer energy conservation standard that takes effect after the date of enactment of this subparagraph but before the amended standard required by this subparagraph shall not apply.''.

SEC. 123. STANDARDS FOR CLOTHES WASHERS.

Section 325(g)(9) of the Energy Policy and Conservation Act (42 U.S.C. 6295(g)(9)) is amended by striking subparagraph (B) and inserting the following:

''(B) AMENDMENT OF STANDARDS.—

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

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

"(II) STANDARDS.—The minimum modified energy factors and maximum water factors referred to in 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.

"(ii) PRODUCTS MANUFACTURED ON OR AFTER JANUARY 1, 2018.—

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

2018, shall comply with the minimum modified energy factors and maximum water factors specified in the table contained in subclause (II).

"(II) STANDARDS.—The minimum modified energy factors and maximum water factors referred to in subclause (I) are as follows:

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

"(iii) FINAL RULE.—

"(I) IN GENERAL.—The final rule to amend the clothes washer test procedure adopted pursuant to section 323(b)(24)(A) shall amend the standards described in clauses (i) and (ii) in accordance with the procedures described in section 323(c)(2).

"(II) STANDBY AND OFF MODE ENERGY CONSUMPTION.—

"(aa) INTEGRATION.—The Secretary shall integrate standby and off mode energy consumption into the amended modified en-

~~ergy factor standards required under subclause (I).~~

~~"(bb) REQUIREMENTS.—The amended modified energy factor standards described in item (aa) shall reflect levels of standby and off mode energy consumption that meet the criteria described in section 325(o).~~

~~"(III) APPLICABILITY.—~~

~~"(aa) AMENDMENT OF STANDARD.—Section 323(e)(3) shall not apply to the amended standards described in subclause (I).~~

~~"(bb) AMENDED STANDARDS FOR PRODUCTS MANUFACTURED ON OR AFTER JANUARY 1, 2015.—Amended standards required by this clause that are based on clause (i) shall apply to products manufactured on or after January 1, 2015.~~

~~"(cc) AMENDED STANDARDS FOR PRODUCTS MANUFACTURED~~

ON OR AFTER JANUARY 1, 2018.—Amended standards required by this clause that are based on clause (ii) shall apply to products manufactured on or after January 1, 2018.''.

SEC. 124. DISHWASHERS.

Section 325(g)(10) of the Energy Policy and Conservation Act (42 U.S.C. 6295(g)(10)) is amended—

(1) by striking subparagraph (A);

(2) by redesignating subparagraph (B) as subparagraph (D); and

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

''(A) DISHWASHERS MANUFACTURED ON OR AFTER JANUARY 1, 2010.—A dishwasher manufactured on or after January 1, 2010, shall—

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

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

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

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

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

"(C) REQUIREMENTS OF FINAL RULES.—

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

"(ii) APPLICABILITY.—

"(I) AMENDMENT OF STANDARD.—Section 323(e)(3) shall not apply to the amended standards described in clause (i).

"(II) AMENDED STANDARDS.—The amended standards required by this subparagraph shall apply to prod-

ucts manufactured on or after January 1, 2013.''.

SEC. 125. STANDARDS FOR CERTAIN REFLECTOR LAMPS.

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

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

''(A) incandescent and nonincandescent technologies; and

''(B) a new energy-related measure, other than lumens per watt, that is based on the photometric distribution of those lamps.''.

SEC. 126. PETITION FOR AMENDED STANDARDS.

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

(1) by redesignating paragraph (3) as paragraph (5); and

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

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

tice of, and explanation for, the decision of the Secretary to grant or deny the petition.

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

''(A) a final rule that contains the new or amended standards; or

''(B) a determination that no new or amended standards are necessary.''.

SEC. 127. PROHIBITED ACTS.

Section 332(a) of the Energy Policy and Conservation Act (42 U.S.C. 6302(a)) is amended—

(1) in paragraph (1), by striking ''for any manufacturer or private labeler to distribute'' and inserting ''for any manufacturer (or representative of a manufacturer), distributor, retailer, or private labeler to offer for sale or distribute'';

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

''(5) for any manufacturer (or representative of a manufacturer), distributor, retailer, or private labeler—

''(A) to offer for sale or distribute in commerce any new covered product that is not in

conformity with an applicable energy conservation standard established in or prescribed under this part; or

"(B) if the standard is a regional standard that is more stringent than the base national standard, to offer for sale or distribute in commerce any new covered product having knowledge (consistent with the definition of 'knowingly' in section 333(b)) that the product will be installed at a location covered by a regional standard established in or prescribed under this part and will not be in conformity with the standard;";

(3) in paragraph (6) (as added by section 306(b)(2) of Public Law 110–140 (121 Stat. 1559)), by striking the period at the end and inserting a semicolon;

(4) by redesignating paragraph (6) (as added by section 321(c)(3) of Public Law 110–140 (121 Stat. 1586)) as paragraph (7);

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

(A) by striking "for any manufacturer, distributor, retailer, or private labeler to distribute" and inserting "for any manufacturer (or representative of a manufacturer), dis-

tributor, retailer, or private labeler to offer for sale or distribute''; and

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

(6) by inserting after paragraph (7) (as so redesignated) the following:

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

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

''(10) for any manufacturer or private labeler to violate any regulation lawfully promulgated to implement any provision of this part.''.

SEC. 128. OUTDOOR LIGHTING.

(a) DEFINITIONS.—

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

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

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

"(L) High light output double-ended quartz halogen lamps.

"(M) General purpose mercury vapor lamps.".

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

(A) by striking "and" before "unfired hot water"; and

(B) by inserting after "tanks" the following: ", high light output double-ended quartz halogen lamps, and general purpose mercury vapor lamps".

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

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

(B) by adding at the end the following:

"(25) GENERAL PURPOSE MERCURY VAPOR LAMP.—The term 'general purpose mercury vapor lamp' means a mercury vapor lamp (as defined in section 321) that—

"(A) has a screw base;

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

"(C) is not a specialty application mercury vapor lamp; and

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

"(26) HIGH LIGHT OUTPUT DOUBLE-ENDED QUARTZ HALOGEN LAMP.—The term 'high light output double-ended quartz halogen lamp' means a lamp that—

"(A) is designed for general outdoor lighting purposes;

"(B) contains a tungsten filament;

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

"(D) has at each end a recessed single contact, R7s base;

~~"(E) has a maximum overall length (MOL) between 4 and 11 inches;~~

~~"(F) has a nominal diameter less than ¾ inch (T6);~~

~~"(G) is designed to be operated at a voltage not less than 110 volts and not greater than 200 volts or is designed to be operated at a voltage between 235 volts and 300 volts;~~

~~"(H) is not a tubular quartz infrared heat lamp; and~~

~~"(I) is not a lamp marked and marketed as a Stage and Studio lamp with a rated life of 500 hours or less.~~

~~"(27) SPECIALTY APPLICATION MERCURY VAPOR LAMP.—The term 'specialty application mercury vapor lamp' means a mercury vapor lamp (as defined in section 321) that is—~~

~~"(A) designed only to operate on a specialty application mercury vapor lamp ballast (as defined in section 321); and~~

~~"(B) is marked and marketed for specialty applications only.~~

~~"(28) TUBULAR QUARTZ INFRARED HEAT LAMP.—The term 'tubular quartz infrared heat~~

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

''(A) is marked and marketed as an infrared heat lamp; and

''(B) radiates predominately in the infrared radiation range and in which the visible radiation is not of principle interest.''.

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

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

''(1) 27 LPW for lamps with a minimum rated initial lumen value greater than 6,000 and a maximum initial lumen value of 15,000; and

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

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

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

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

(2) by adding at the end the following:

''(i) HIGH LIGHT OUTPUT DOUBLE-ENDED QUARTZ HALOGEN LAMPS.—

''(1) IN GENERAL.—Except as provided in paragraph (2), section 327 shall apply to high light output double-ended quartz halogen lamps to the same extent and in the same manner as described in section 325(nn)(1).

''(2) STATE ENERGY CONSERVATION STANDARDS.—Any State energy conservation standard that is adopted on or before January 1, 2015, pursuant to a statutory requirement to adopt efficiency standard for reducing outdoor lighting energy use enacted prior to January 31, 2008, shall not be preempted.''.

SEC. 129. STANDARDS FOR COMMERCIAL FURNACES.

Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)) is amended by adding at the end the following:

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

enactment of this paragraph shall meet the following standard levels:

''(A) Gas-fired units shall—

''(i) have a minimum thermal efficiency of 80 percent;

''(ii) include an interrupted or intermittent ignition device;

''(iii) have jacket losses not exceeding 0.75 percent of the input rating; and

''(iv) have power venting or a flue damper.

''(B) Oil-fired units shall have—

''(i) a minimum thermal efficiency of 81 percent;

''(ii) jacket losses not exceeding 0.75 percent of the input rating; and

''(iii) power venting or a flue damper.''.

SEC. 130. SERVICE OVER THE COUNTER, SELF-CONTAINED, MEDIUM TEMPERATURE COMMERCIAL REFRIGERATORS.

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

(1) in paragraph (1)—

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

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

''(C) The term 'service over the counter, self-contained, medium temperature commercial refrigerator' or '(SOC–SC–M)' means a medium temperature commercial refrigerator—

''(i) with a self-contained condensing unit and equipped with sliding or hinged doors in the back intended for use by sales personnel, and with glass or other transparent material in the front for displaying merchandise; and

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

''(D) The term 'TDA' means the total display area (ft^2) of the refrigerated case, as defined in AHRI Standard 1200.'';

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

(3) by inserting after paragraph (3) the following:

''(4) Each SOC–SC–M manufactured on or after January 1, 2012, shall have a total daily energy consumption (in kilowatt hours per day) of not more than 0.6 x TDA + 1.0.''.

SEC. 131. MOTOR MARKET ASSESSMENT AND COMMERCIAL AWARENESS PROGRAM.

(a) FINDINGS.—Congress finds that—

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

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

(3) Federal Government research on motor end use and efficiency opportunities is more than a decade old; and

(4) the Census Bureau has discontinued collection of data on motor and generator importation, manufacture, shipment, and sales.

(b) DEFINITIONS.—In this section:

(1) DEPARTMENT.—The term ''Department'' means the Department of Energy.

(2) INTERESTED PARTIES.—The term ''interested parties'' includes—

(A) trade associations;

(B) motor manufacturers;

(C) motor end users;

(D) electric utilities; and

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

(3) SECRETARY.—The term ''Secretary'' means the Secretary of Energy, in consultation with interested parties.

(c) ASSESSMENT.—The Secretary shall conduct an assessment of electric motors and the electric motor market in the United States that shall—

(1) include important subsectors of the industrial and commercial electric motor market (as determined by the Secretary), including—

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

(B) efficiency categories of the motor population; and

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

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

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

(B) expanded use of process control, pumps, compressors, fans or blowers, and material handling components; and

(C) substitution of existing motor designs with existing and future advanced motor designs, including electronically commutated permanent magnet, interior permanent magnet, and switched reluctance motors; and

(3) develop an updated profile of motor system purchase and maintenance practices, including surveying the number of companies that have motor purchase and repair specifications, by company size, number of employees, and sales.

(d) RECOMMENDATIONS; UPDATE.—Based on the assessment conducted under subsection (c), the Secretary shall—

(1) develop—

(A) recommendations to update the detailed motor profile on a periodic basis;

(B) methods to estimate the energy savings and market penetration that is attributable to the Save Energy Now Program of the Department; and

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

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

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

~~(c) PROGRAM.—Based on the assessment, recommendations, and update required under subsections (c) and (d), the Secretary shall establish a proactive, national program targeted at motor end-users and delivered in cooperation with interested parties to increase awareness of—~~

~~(1) the energy and cost-saving opportunities in commercial and industrial facilities using higher efficiency electric motors;~~

~~(2) improvements in motor system procurement and management procedures in the selection of higher efficiency electric motors and motor-system components, including drives, controls, and driven equipment; and~~

~~(3) criteria for making decisions for new, replacement, or repair motor and motor system components.~~

~~SEC. 132. STUDY OF COMPLIANCE WITH ENERGY STANDARDS FOR APPLIANCES.~~

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

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

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

SEC. 133. STUDY OF DIRECT CURRENT ELECTRICITY SUPPLY IN CERTAIN BUILDINGS.

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

(1) of the costs and benefits (including significant energy efficiency, power quality, and other power grid, safety, and environmental benefits) of requiring high-quality, direct current electricity supply in buildings; and

(2) to determine, if the requirement described in paragraph (1) is imposed, what the policy and role of the Federal Government should be in realizing those benefits.

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

ing the results of the study, including any recommendations.

SEC. 134. TECHNICAL CORRECTIONS.

(a) TITLE III OF ENERGY INDEPENDENCE AND SECURITY ACT OF 2007—ENERGY SAVINGS THROUGH IMPROVED STANDARDS FOR APPLIANCES AND LIGHTING.—

(1) Section 325(u) of the Energy Policy and Conservation Act (42 U.S.C. 6295(u)) (as amended by section 301(c) of the Energy Independence and Security Act of 2007 (121 Stat. 1550)) is amended—

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

(B) in paragraph (4) (as so redesignated), by striking ''supplies is'' and inserting ''supply is''.

(2) Section 302(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1551) is amended by striking ''6313(a)'' and inserting ''6314(a)''.

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

(A) in subparagraph (B)—

(i) by striking ''If the Secretary'' and inserting the following:

''(i) IN GENERAL.—If the Secretary'';

(ii) by striking ''clause (ii)(II)'' and inserting ''subparagraph (A)(ii)(II)'';

(iii) by striking ''clause (i)'' and inserting ''subparagraph (A)(i)''; and

(iv) by adding at the end the following:

''(ii) FACTORS.—In determining whether a standard is economically justified for the purposes of subparagraph (A)(ii)(II), the Secretary shall, after receiving views and comments furnished with respect to the proposed standard, determine whether the benefits of the standard exceed the burden of the proposed standard by, to the maximum extent practicable, considering—

''(I) the economic impact of the standard on the manufacturers and on the consumers of the products subject to the standard;

~~"(II) the savings in operating costs throughout the estimated average life of the product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the products that are likely to result from the imposition of the standard;~~

~~"(III) the total projected quantity of energy savings likely to result directly from the imposition of the standard;~~

~~"(IV) any lessening of the utility or the performance of the products likely to result from the imposition of the standard;~~

~~"(V) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;~~

~~"(VI) the need for national energy conservation; and~~

~~"(VII) other factors the Secretary considers relevant.~~

~~"(iii) ADMINISTRATION.—~~

~~"(I) ENERGY USE AND EFFICIENCY.—The Secretary may not prescribe any amended standard under this paragraph that increases the maximum allowable energy use, or decreases the minimum required energy efficiency, of a covered product.~~

~~"(II) UNAVAILABILITY.—~~

~~"(aa) IN GENERAL.—The Secretary may not prescribe an amended standard under this subparagraph if the Secretary finds (and publishes the finding) that interested persons have established by a preponderance of the evidence that a standard is likely to result in the unavailability in the United States in any product type (or class) of performance characteristics (including reliability, features, sizes, capacities, and volumes) that are substantially the same as those generally available in the United~~

States at the time of the finding of the Secretary.

''(bb) OTHER TYPES OR CLASSES.—The failure of some types (or classes) to meet the criterion established under this subclause shall not affect the determination of the Secretary on whether to prescribe a standard for the other types or classes.''; and

(B) in subparagraph (C)(iv), by striking ''An amendment prescribed under this subsection'' and inserting ''Notwithstanding subparagraph (D), an amendment prescribed under this subparagraph''.

(4) Section 342(a)(6)(B)(iii) of the Energy Policy and Conservation Act (as added by section 306(c) of the Energy Independence and Security Act of 2007 (121 Stat. 1559)) is transferred and redesignated as clause (vi) of section 342(a)(6)(C) of the Energy Policy and Conservation Act (as amended by section 305(b)(2) of the Energy Independence and Security Act of 2007 (121 Stat. 1554)).

(5) Section 345 of the Energy Policy and Conservation Act (42 U.S.C. 6316) (as amended by section 312(c) of the Energy Independence and Security Act of 2007 (121 Stat. 1567)) is amended—

(A) by striking ''subparagraphs (B) through (G)'' each place it appears and inserting ''subparagraphs (B), (C), (D), (I), (J), and (K)'';

(B) by striking ''part A'' each place it appears and inserting ''part B''; and

(C) in subsection (a)—

(i) in paragraph (8), by striking ''and'' at the end;

(ii) in paragraph (9), by striking the period at the end and inserting ''; and''; and

(iii) by adding at the end the following:

''(10) section 327 shall apply with respect to the equipment described in section 340(1)(L) beginning on the date on which a final rule establishing an energy conservation standard is issued by the Secretary, except that any State or local standard prescribed or enacted for the equipment before the date on which the final rule is issued shall not be

preempted until the energy conservation standard established by the Secretary for the equipment takes effect.''; and

(D) in subsection (h)(3), by striking ''section 342(f)(3)'' and inserting ''section 342(f)(4)''.

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

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

''(A) IN GENERAL.—The term 'electric motor' means any of the following:

''(i) A motor that is a general purpose T-frame, single-speed, foot-mounting, polyphase squirrel-cage induction motor of the National Electrical Manufacturers Association, Design A and B, continuous rated, operating on 230/460 volts and constant 60 Hertz line power as defined in NEMA Standards Publication MG1–1987.

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

figured to incorporate 1 or more of the following variations:

"(I) U-frame motor.

"(II) NEMA Design C motor.

"(III) Close-coupled pump motor.

"(IV) Footless motor.

"(V) Vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

"(VI) 8-pole motor.

"(VII) Poly-phase motor with a voltage rating of not more than 600 volts (other than 230 volts or 460 volts, or both, or can be operated on 230 volts or 460 volts, or both).";

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

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

(i) in paragraph (1), by striking "paragraph (2)" and inserting "paragraph (3)";

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

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

"(2) STANDARDS EFFECTIVE BEGINNING DECEMBER 19, 2010.—

"(A) IN GENERAL.—Except for definite purpose motors, special purpose motors, and those motors exempted by the Secretary under paragraph (3) and except as provided for in subparagraphs (B), (C), and (D), each electric motor manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG–1 (2006) Table 12–12.

"(B) FIRE PUMP ELECTRIC MOTORS.—Except for those motors exempted by the Secretary under paragraph (3), each fire pump electric motor manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency that is not less than the nominal

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

"(C) NEMA DESIGN B ELECTRIC MOTORS.—Except for those motors exempted by the Secretary under paragraph (3), each NEMA Design B electric motor with power ratings of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG–1 (2006) Table 12–11.

"(D) MOTORS INCORPORATING CERTAIN DESIGN ELEMENTS.—Except for those motors exempted by the Secretary under paragraph (3), each electric motor described in section 340(13)(A)(ii) manufactured with power ratings from 1 to 200 horsepower (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full load efficiency of not less than the nominal full load efficiency described in NEMA MG–1 (2006) Table 12–11."; and

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

(B) Section 313 of the Energy Independence and Security Act of 2007 (121 Stat. 1568) is repealed.

(C) The amendments made by—

(i) subparagraph (A) take effect on December 19, 2010; and

(ii) subparagraph (B) take effect on December 19, 2007.

(8) Section 321(30)(D)(i)(III) of the Energy Policy and Conservation Act (42 U.S.C. 6291(30)(D)(i)(III)) (as amended by section 321(a)(1)(A) of the Energy Independence and Security Act of 2007 (121 Stat. 1574)) is amended by inserting before the semicolon the following: ''or, in the case of a modified spectrum lamp, not less than 232 lumens and not more than 1,950 lumens''.

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

(A) in clause (i)—

(i) by striking the comma after ''household appliance'' and inserting ''and''; and

(ii) by striking ''and is sold at retail,''; and

(B) in clause (ii), by inserting ''when sold at retail,'' before ''is designated''.

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

''(i) GENERAL SERVICE FLUORESCENT LAMPS, GENERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE BASE INCANDESCENT LAMPS, CANDELABRA BASE INCANDESCENT LAMPS, AND INCANDESCENT REFLECTOR LAMPS.—

''(1) ENERGY EFFICIENCY STANDARDS.—

''(A) IN GENERAL.—Each of the following general service fluorescent lamps, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent

lamps, and incandescent reflector lamps manufactured after the effective date specified in the tables listed in this subparagraph shall meet or exceed the standards established in the following tables:

"FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (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 Efficacy (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 Lifetime	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 Lifetime	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 Lifetime	Effective Date
232–562	29	1,000 hrs	1/1/2014.

"(B) APPLICATION.—

"(i) APPLICATION CRITERIA.—This subparagraph applies to each lamp that—

"(I) is intended for a general service or general illumination application (whether incandescent or not);

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

"(III) is capable of being operated at a voltage at least partially within the range of 110 to 130 volts; and

"(IV) is manufactured or imported after December 31, 2011.

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

"(I) 80 for nonmodified spectrum lamps; or

~~"(II) 75 for modified spectrum lamps.~~

~~"(C) CANDELABRA INCANDESCENT LAMPS AND INTERMEDIATE BASE INCANDESCENT LAMPS.—~~

~~"(i) CANDELABRA BASE INCANDESCENT LAMPS.—Effective beginning January 1, 2012, a candelabra base incandescent lamp shall not exceed 60 rated watts.~~

~~"(ii) INTERMEDIATE BASE INCANDESCENT LAMPS.—Effective beginning January 1, 2012, an intermediate base incandescent lamp shall not exceed 40 rated watts.~~

~~"(D) EXEMPTIONS.—~~

~~"(i) STATUTORY EXEMPTIONS.—The standards specified in subparagraph (A) shall not apply to the following types of incandescent reflector lamps:~~

~~"(I) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps.~~

~~"(II) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps.~~

"(III) R20 incandescent reflector lamps rated 45 watts or less.

"(ii) ADMINISTRATIVE EXEMPTIONS.—

"(I) PETITION.—Any person may petition the Secretary for an exemption for a type of general service lamp from the requirements of this subsection.

"(II) CRITERIA.—The Secretary may grant an exemption under subclause (I) only to the extent that the Secretary finds, after a hearing and opportunity for public comment, that it is not technically feasible to serve a specialized lighting application (such as a military, medical, public safety, or certified historic lighting application) using a lamp that meets the requirements of this subsection.

"(III) ADDITIONAL CRITERION.—To grant an exemption for a product under this clause, the Secretary shall include, as an additional criterion, that the exempted product is unlikely

to be used in a general service lighting application.

"(E) EXTENSION OF COVERAGE.—

"(i) PETITION.—Any person may petition the Secretary to establish standards for lamp shapes or bases that are excluded from the definition of general service lamps.

"(ii) INCREASED SALES OF EXEMPTED LAMPS.—The petition shall include evidence that the availability or sales of exempted incandescent lamps have increased significantly since the date on which the standards on general service incandescent lamps were established.

"(iii) CRITERIA.—The Secretary shall grant a petition under clause (i) if the Secretary finds that—

"(I) the petition presents evidence that demonstrates that commercial availability or sales of exempted incandescent lamp types have increased significantly since the standards on general service lamps were established and likely are being widely

used in general lighting applications; and

"(II) significant energy savings could be achieved by covering exempted products, as determined by the Secretary based in part on sales data provided to the Secretary from manufacturers and importers.

"(iv) NO PRESUMPTION.—The grant of a petition under this subparagraph shall create no presumption with respect to the determination of the Secretary with respect to any criteria under a rulemaking conducted under this section.

"(v) EXPEDITED PROCEEDING.—If the Secretary grants a petition for a lamp shape or base under this subparagraph, the Secretary shall—

"(I) conduct a rulemaking to determine standards for the exempted lamp shape or base; and

"(II) complete the rulemaking not later than 18 months after the date on which notice is provided granting the petition.

‘‘(F) EFFECTIVE DATES.—

‘‘(i) IN GENERAL.—In this paragraph, except as otherwise provided in a table contained in subparagraph (A) or in clause (ii), the term ‘effective date’ means the last day of the period of months specified in the table after October 24, 1992.

‘‘(ii) SPECIAL EFFECTIVE DATES.—

‘‘(I) ER, BR, AND BPAR LAMPS.—The standards specified in subparagraph (A) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

‘‘(II) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (A) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not

more than 2.75 inches, on and after the later of January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.

"(2) COMPLIANCE WITH EXISTING LAW.—Notwithstanding section 332(a)(5) and section 332(b), it shall not be unlawful for a manufacturer to sell a lamp that is in compliance with the law at the time the lamp was manufactured.

"(3) RULEMAKING BEFORE OCTOBER 24, 1995.—

"(A) IN GENERAL.—Not later than 36 months after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than the end of the 54-month period beginning on October 24, 1992, to determine whether the standards established under paragraph (1) should be amended.

"(B) ADMINISTRATION.—The rule shall contain the amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period

beginning on the date on which the final rule is published.

"(4) RULEMAKING BEFORE OCTOBER 24, 2000.—

"(A) IN GENERAL.—Not later than 8 years after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than 9 years and 6 months after October 24, 1992, to determine whether the standards in effect for fluorescent lamps and incandescent lamps should be amended.

"(B) ADMINISTRATION.—The rule shall contain the amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date on which the final rule is published.

"(5) RULEMAKING FOR ADDITIONAL GENERAL SERVICE FLUORESCENT LAMPS.—

"(A) IN GENERAL.—Not later than the end of the 24-month period beginning on the date labeling requirements under section 324(a)(2)(C) become effective, the Secretary shall—

"(i) initiate a rulemaking procedure to determine whether the standards in effect for fluorescent lamps and incandescent lamps should be amended so that the standards would be applicable to additional general service fluorescent lamps; and

"(ii) publish, not later than 18 months after initiating the rulemaking, a final rule including the amended standards, if any.

"(B) ADMINISTRATION.—The rule shall provide that the amendment shall apply to products manufactured after a date which is 36 months after the date on which the rule is published.

"(6) STANDARDS FOR GENERAL SERVICE LAMPS.—

"(A) RULEMAKING BEFORE JANUARY 1, 2014.—

"(i) IN GENERAL.—Not later than January 1, 2014, the Secretary shall initiate a rulemaking procedure to determine whether—

"(I) standards in effect for general service lamps should be amended; and

"(II) the exclusions for certain incandescent lamps should be maintained or discontinued based, in part, on excluded lamp sales collected by the Secretary from manufacturers.

"(ii) SCOPE.—The rulemaking—

"(I) shall not be limited to incandescent lamp technologies; and

"(II) shall include consideration of a minimum standard of 45 lumens per watt for general service lamps.

"(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2017, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

"(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider

phased-in effective dates under this subparagraph after considering—

"(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

"(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

"(v) BACKSTOP REQUIREMENT.—If the Secretary fails to complete a rulemaking in accordance with clauses (i) through (iv) or if the final rule does not produce savings that are greater than or equal to the savings from a minimum efficacy standard of 45 lumens per watt, effective beginning January 1, 2020, the Secretary shall prohibit the manufacture of any general service lamp that does not meet a minimum efficacy standard of 45 lumens per watt.

"(vi) STATE PREEMPTION.—Neither section 327 nor any other provision of law

shall preclude California or Nevada from adopting, effective beginning on or after January 1, 2018—

"(I) a final rule adopted by the Secretary in accordance with clauses (i) through (iv);

"(II) if a final rule described in subclause (I) has not been adopted, the backstop requirement under clause (v); or

"(III) in the case of California, if a final rule described in subclause (I) has not been adopted, any California regulations relating to these covered products adopted pursuant to State statute in effect on the date of enactment of the Energy Independence and Security Act of 2007.

"(B) RULEMAKING BEFORE JANUARY 1, 2020.—

"(i) IN GENERAL.—Not later than January 1, 2020, the Secretary shall initiate a rulemaking procedure to determine whether—

"(I) standards in effect for general service lamps should be amended; and

"(II) the exclusions for certain incandescent lamps should be maintained or discontinued based, in part, on excluded lamp sales data collected by the Secretary from manufacturers.

"(ii) SCOPE.—The rulemaking shall not be limited to incandescent lamp technologies.

"(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2022, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

"(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

"(I) the impact of any amendment on manufacturers, retiring and

repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

"(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

"(7) FEDERAL ACTIONS.—

"(A) COMMENTS OF SECRETARY.—

"(i) IN GENERAL.—With respect to any lamp to which standards are applicable under this subsection or any lamp specified in section 346, the Secretary shall inform any Federal entity proposing actions that would adversely impact the energy consumption or energy efficiency of the lamp of the energy conservation consequences of the action.

"(ii) CONSIDERATION.—The Federal entity shall carefully consider the comments of the Secretary.

"(B) AMENDMENT OF STANDARDS.—Notwithstanding section 325(n)(1), the Secretary shall not be prohibited from amending any standard, by rule, to permit increased energy

use or to decrease the minimum required energy efficiency of any lamp to which standards are applicable under this subsection if the action is warranted as a result of other Federal action (including restrictions on materials or processes) that would have the effect of either increasing the energy use or decreasing the energy efficiency of the product.

''(8) COMPLIANCE.—

''(A) IN GENERAL.—Not later than the date on which standards established pursuant to this subsection become effective, or, with respect to high-intensity discharge lamps covered under section 346, the effective date of standards established pursuant to that section, each manufacturer of a product to which the standards are applicable shall file with the Secretary a laboratory report certifying compliance with the applicable standard for each lamp type.

''(B) CONTENTS.—The report shall include the lumen output and wattage consumption for each lamp type as an average of measurements taken over the preceding 12-month period.

''(C) OTHER LAMP TYPES.—With respect to lamp types that are not manufactured during

the 12-month period preceding the date on which the standards become effective, the report shall—

"(i) be filed with the Secretary not later than the date that is 12 months after the date on which manufacturing is commenced; and

"(ii) include the lumen output and wattage consumption for each such lamp type as an average of measurements taken during the 12-month period.".

(11) Section 325(l)(4)(A) of the Energy Policy and Conservation Act (42 U.S.C. 6295(l)(4)(A)) (as amended by section 321(a)(3)(B) of the Energy Independence and Security Act of 2007 (121 Stat. 1581)) is amended by striking "only".

(12) Section 327(b)(1)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6297(b)(1)(B)) (as amended by section 321(d)(3) of the Energy Independence and Security Act of 2007 (121 Stat. 1585)) is amended—

(A) in clause (i), by inserting "and" after the semicolon at the end;

(B) in clause (ii), by striking "; and" and inserting a period; and

(C) by striking clause (iii).

(13) Section 321(30)(C)(ii) of the Energy Policy and Conservation Act (42 U.S.C. 6291(30)(C)(ii)) (as amended by section 322(a)(1)(B) of the Energy Independence and Security Act of 2007 (121 Stat. 1587)) is amended by inserting a period after ''40 watts or higher''.

(14) Section 322(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1588) is amended by striking ''6995(i)'' and inserting ''6295(i)''.

(15) Section 327(c) of the Energy Policy and Conservation Act (42 U.S.C. 6297(c)) (as amended by sections 324(f) of the Energy Independence and Security Act of 2007 (121 Stat. 1594) and section 6(c)(2)) is amended—

(A) in paragraph (6), by striking ''or'' after the semicolon at the end;

(B) in paragraph (9)(B), by striking ''or'' at the end;

(C) in paragraph (10), by striking the period at the end and inserting a semicolon;

(D) by adding at the end the following:

''(11) is a regulation for general service lamps that conforms with Federal standards and effective dates; or

''(12) is an energy efficiency standard for general service lamps enacted into law by the State of Nevada prior to December 19, 2007, if the State has not adopted the Federal standards and effective dates pursuant to subsection (b)(1)(B)(ii).''.

(16) Section 325(b) of the Energy Independence and Security Act of 2007 (121 Stat. 1596) is amended by striking ''6924(e)'' and inserting ''6294(e)''.

(17) This subsection and the amendments made by this subsection take effect as if included in the Energy Independence and Security Act of 2007 (Public Law 110–140; 121 Stat. 1492).

(b) ENERGY POLICY ACT OF 2005.—

(1) Section 325(g)(8)(C)(ii) of the Energy Policy and Conservation Act (42 U.S.C. 6295(g)(8)(C)(ii)) (as added by section 135(c)(2)(B) of the Energy Policy Act of 2005) is amended by striking ''20°F'' and inserting ''−20°F''.

(2) This subsection and the amendment made by this subsection take effect as if included in the

Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 594).

(c) ENERGY POLICY AND CONSERVATION ACT.—

(1) Section 340(2)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6311(2)(B)) is amended—

(A) in clause (xi), by striking "and" at the end;

(B) in clause (xii), by striking the period at the end and inserting "; and"; and

(C) by adding at the end the following:

"(xiii) other motors.".

(2) Section 343(a) of the Energy Policy and Conservation Act (42 U.S.C. 6314(a)) is amended by striking "Air-Conditioning and Refrigeration Institute" each place it appears in paragraphs (4)(A) and (7) and inserting "Air-Conditioning, Heating, and Refrigeration Institute".

Subtitle C—Worker Training and Capacity Building

SEC. 141. BUILDING TRAINING AND ASSESSMENT CENTERS.

(a) IN GENERAL.—The Secretary of Energy shall provide grants to institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) and Tribal Colleges or Universities (as

defined in section 316(b) of that Act (20 U.S.C. 1059c(b)) to establish building training and assessment centers—

(1) to identify opportunities for optimizing energy efficiency and environmental performance in buildings;

(2) to promote the application of emerging concepts and technologies in commercial and institutional buildings;

(3) to train engineers, architects, building scientists, building energy permitting and enforcement officials, and building technicians in energy-efficient design and operation;

(4) to assist institutions of higher education and Tribal Colleges or Universities in training building technicians;

(5) to promote research and development for the use of alternative energy sources to supply heat and power for buildings, particularly energy-intensive buildings; and

(6) to coordinate with and assist State-accredited technical training centers, community colleges, Tribal Colleges or Universities, and local offices of the National Institute of Food and Agriculture and ensure appropriate services are provided under this section to each region of the United States.

(b) COORDINATION AND NONDUPLICATION.—

(1) IN GENERAL.—The Secretary shall coordinate the program with the Industrial Assessment Centers program and with other Federal programs to avoid duplication of effort.

(2) COLLOCATION.—To the maximum extent practicable, building, training, and assessment centers established under this section shall be collocated with Industrial Assessment Centers.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

TITLE II—BUILDING EFFICIENCY FINANCE

SEC. 201. RURAL ENERGY SAVINGS PROGRAM.

Title VI of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 7901 note et seq.) is amended by adding the following:

"SEC. 6407. RURAL ENERGY SAVINGS PROGRAM.

''(a) PURPOSE.—The purpose of this section is to create and save jobs by providing loans to qualified consumers that will use the loan proceeds to implement energy efficiency measures to achieve significant reductions in energy costs, energy consumption, or carbon emissions.

''(b) DEFINITIONS.—In this section:

‘‘(1) ELIGIBLE ENTITY.—The term ‘eligible entity’ means—

‘‘(A) any public power district, public utility district, or similar entity, or any electric cooperative described in sections 501(c)(12) or 1381(a)(2)(C) of the Internal Revenue Code of 1986, that borrowed and repaid, prepaid, or is paying an electric loan made or guaranteed by the Rural Utilities Service (or any predecessor agency); or

‘‘(B) any entity primarily owned or controlled by an entity or entities described in subparagraph (A).

‘‘(2) ENERGY EFFICIENCY MEASURES.—The term ‘energy efficiency measures’ means, for or at property served by an eligible entity, structural improvements and investments in cost-effective, commercial technologies to increase energy efficiency.

‘‘(3) QUALIFIED CONSUMER.—The term ‘qualified consumer’ means a consumer served by an eligible entity that has the ability to repay a loan made under subsection (d), as determined by an eligible entity.

''(4) SECRETARY.—The term 'Secretary' means the Secretary of Agriculture, acting through the Rural Utilities Service.

''(c) LOANS TO ELIGIBLE ENTITIES.—

''(1) LOANS AUTHORIZED.—Subject to paragraph (2), the Secretary shall make loans to eligible entities that agree to use the loan funds to make loans to qualified consumers as described in subsection (d) for the purpose of implementing energy efficiency measures.

''(2) LIST, PLAN, AND MEASUREMENT AND VERIFICATION REQUIRED.—

''(A) IN GENERAL.—As a condition to receiving a loan or grant under this subsection, an eligible entity shall—

''(i) establish a list of energy efficiency measures that is expected to decrease energy use or costs of qualified consumers;

''(ii) prepare an implementation plan for use of the loan funds; and

''(iii) provide for appropriate measurement and verification to ensure the effectiveness of the energy efficiency loans made by the eligible entity and that there

is no conflict of interest in the carrying out of this section.

''(B) REVISION OF LIST OF ENERGY EFFICIENCY MEASURES.—An eligible entity may update the list required under subparagraph (A)(i) to account for newly available efficiency technologies, subject to the approval of the Secretary.

''(C) EXISTING ENERGY EFFICIENCY PROGRAMS.—An eligible entity that, on or before the date of the enactment of this section or within 60 days after such date, has already established an energy efficiency program for qualified consumers may use an existing list of energy efficiency measures, implementation plan, or measurement and verification system of that program to satisfy the requirements of subparagraph (A) if the Secretary determines the list, plans, or systems are consistent with the purposes of this section.

''(3) NO INTEREST.—A loan under this subsection shall bear no interest.

''(4) REPAYMENT.—In the case of a loan made under paragraph (1)—

"(A) the term shall not exceed 20 years from the date the loan is closed; and

"(B) except as provided in paragraph (6), the repayment of each advance shall be amortized for a period of not to exceed 10 years.

"(5) AMOUNT OF ADVANCES.—Any advance of loan funds to an eligible entity in any single year shall not exceed 50 percent of the approved loan amount.

"(6) SPECIAL ADVANCE FOR START-UP ACTIVITIES.—

"(A) IN GENERAL.—In order to assist an eligible entity in defraying appropriate start-up costs of establishing new programs or modifying existing programs to carry out subsection (d) (as determined by the Secretary), the Secretary shall allow an eligible entity to request a special advance.

"(B) AMOUNT OF SPECIAL ADVANCE.—No eligible entity may receive a special advance under this paragraph for an amount that is greater than 4 percent of the loan amount received by the eligible entity under paragraph (1).

"(C) REPAYMENT.—Repayment of the special advance—

"(i) shall be required not later than the end of the 10-year period beginning on the date the special advance is made; and

"(ii) at the option of the eligible entity, may be deferred to the end of the 10-year period.

"(7) LIMITATION ON ADVANCES.—An advance on a loan described in paragraph (1) shall be made during the initial 10 years of the term of the loan.

"(d) LOANS TO QUALIFIED CONSUMERS.—

"(1) TERMS OF LOANS.—Loans made by an eligible entity to qualified consumers using loan funds provided by the Secretary under subsection (c)—

"(A) may bear interest, not to exceed three percent, to be used for purposes that include establishing a loan loss reserve and to offset personnel and program costs of eligible entities to provide the loans;

"(B) shall finance energy efficiency measures for the purpose of decreasing energy usage or costs of the qualified consumer by an amount such that a loan term of not more than ten years will not pose an undue financial bur-

den on the qualified consumer, as determined by the eligible entity;

''(C) shall not be used to fund energy efficiency measures made to personal property unless the personal property—

''(i) is or becomes attached to real property as a fixture; or

''(ii) is a manufactured home;

''(D) shall be repaid through charges added to the electric bill for the property at which energy efficiency measures are or will be implemented, except that this subparagraph shall not prohibit—

''(i) the voluntary prepayment of a loan by the owner of the property; or

''(ii) the use of any additional repayment mechanisms that are—

''(I) demonstrated to have appropriate risk mitigation features, as determined by the eligible entity; or

''(II) required if the qualified consumer is no longer a customer of the eligible entity; and

''(E) shall require an energy audit by an eligible entity to determine the impact of pro-

posed energy efficiency measures on the energy costs and consumption of the qualified consumer.

''(2) CONTRACTORS.—In addition to any other qualified general contractor, eligible entities may serve as general contractors.

''(c) CONTRACT FOR MEASUREMENT AND VERIFICATION, TRAINING, AND TECHNICAL ASSISTANCE.—

''(1) IN GENERAL.—Not later than 90 days after the date of enactment of this section, the Secretary—

''(A) shall establish a plan for measurement and verification, training, and technical assistance for the program; and

''(B) may enter into 1 or more contracts with a qualified entity for the purposes of—

''(i) providing measurement and verification activities; and

''(ii) developing a program to provide technical assistance and training to the employees of eligible entities to carry out this section.

''(2) USE OF SUBCONTRACTORS AUTHORIZED.—A qualified entity that enters into a contract

under paragraph (1) may use subcontractors to assist the qualified entity in performing the contract.

''(f) FAST START DEMONSTRATION PROJECTS.—

''(1) DEMONSTRATION PROJECTS REQUIRED.—The Secretary shall enter into agreements with eligible entities (or groups of eligible entities) that have energy efficiency programs described in subsection (c)(2)(C) to establish an energy efficiency loan demonstration projects consistent with the purposes of this section.

''(2) EVALUATION CRITERIA.—In determining which eligible entities to make loans under this section, the Secretary shall give a preference to entities that—

''(A) implement approaches to energy audits and investments in energy efficiency measures that yield measurable and predictable savings;

''(B) use measurement and verification processes to determine the effectiveness of energy efficiency loans made by eligible entities;

''(C) include training for employees of eligible entities, including any contractors of such entities, to implement or oversee the activities described in subparagraphs (A) and (B);

"(D) provide for the participation of a majority of eligible entities in a State;

"(E) reduce the need for generating capacity;

"(F) provide efficiency loans to—

"(i) not fewer than 20,000 consumers, in the case of a single eligible entity; or

"(ii) not fewer than 80,000 consumers, in the case of a group of eligible entities; and

"(G) serve areas where a large percentage of consumers reside—

"(i) in manufactured homes; or

"(ii) in housing units that are more than 50 years old.

"(3) DEADLINE FOR IMPLEMENTATION.—The agreements required by paragraph (1) shall be entered into not later than 90 days after the date of enactment of this section.

"(4) EFFECT ON AVAILABILITY OF LOANS NATIONALLY.—Nothing in this subsection shall delay the availability of loans to eligible entities on a national basis beginning not later than 180 days after the date of enactment of this section.

''(5) ADDITIONAL DEMONSTRATION PROJECT AUTHORITY.—

''(A) IN GENERAL.—The Secretary may conduct demonstration projects in addition to the project required by paragraph (1).

''(B) INAPPLICABILITY OF CERTAIN CRITERIA.—The additional demonstration projects may be carried out without regard to subparagraphs (D), (F), or (G) of paragraph (2).

''(g) ADDITIONAL AUTHORITY.—The authority provided in this section is in addition to any authority of the Secretary to offer loans or grants under any other law.

''(h) AUTHORIZATION OF APPROPRIATIONS.—

''(1) IN GENERAL.—There is authorized to be appropriated to the Secretary to carry out this section $405,000,000 for fiscal year 2012, to remain available until expended.

''(2) AMOUNTS FOR LOANS, GRANTS, STAFFING.—Of the amounts appropriated pursuant to the authorization of appropriations in paragraph (1), the Secretary shall make available—

''(A) $400,000,000 for the purpose of covering the cost of loans to eligible entities under subsection (c) to subsidize gross obligations in

the principal amount of not to exceed $2,000,000,000; and

"(B) $5,000,000 for measurement and verification activities under subsection (e)(1)(A).

"(i) EFFECTIVE PERIOD.—Subject to subsection (h)(1) and except as otherwise provided in this section, the loans, grants, and other expenditures required to be made under this section are authorized to be made during each of fiscal years 2012 through 2016.

"(j) REGULATIONS.—

"(1) IN GENERAL.—Except as otherwise provided in this subsection, not later than 180 days after the date of enactment of this section, the Secretary shall promulgate such regulations as are necessary to implement this section.

"(2) PROCEDURE.—The promulgation of the regulations and administration of this section shall be made without regard to—

"(A) chapter 35 of title 44, United States Code (commonly known as the 'Paperwork Reduction Act'); and

"(B) the Statement of Policy of the Secretary of Agriculture effective July 24, 1971 (36 Fed. Reg. 13804), relating to notices of

proposed rulemaking and public participation in rulemaking.

''(3) CONGRESSIONAL REVIEW OF AGENCY RULEMAKING.—In carrying out this section, the Secretary shall use the authority provided under section 808 of title 5, United States Code.

''(4) INTERIM REGULATIONS.—Notwithstanding paragraphs (1) and (2), to the extent regulations are necessary to carry out any provision of this section, the Secretary shall implement such regulations through the promulgation of an interim rule.''.

SEC. 202. LOAN PROGRAM FOR ENERGY EFFICIENCY UPGRADES TO EXISTING BUILDINGS.

Title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.) is amended by adding at the end the following:

''SEC. 1706. BUILDING RETROFIT FINANCING PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) CREDIT SUPPORT.—The term 'credit support' means a guarantee or commitment to issue a guarantee or other forms of credit enhancement to ameliorate risks for efficiency obligations.

''(2) EFFICIENCY OBLIGATION.—The term 'efficiency obligation' means a debt or repayment obliga-

tion incurred in connection with financing a project, or a portfolio of such debt or payment obligations.

''(3) PROJECT.—The term 'project' means the installation of efficiency or renewable energy measures (including metering) in a building (or in multiple buildings on a given property) that are expected to increase the energy efficiency of the building (including fixtures) in accordance with criteria established by the Secretary.

''(b) ELIGIBLE PROJECTS.—

''(1) IN GENERAL.—Notwithstanding sections 1703 and 1705, the Secretary may provide credit support under this section, in accordance with section 1702.

''(2) INCLUSIONS.—Buildings eligible for credit support under this section include commercial, industrial, municipal, university, school, and hospital facilities that satisfy criteria established by the Secretary.

''(c) GUIDELINES.—

''(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Secretary shall establish guidelines for credit support provided under this section.

"(2) REQUIREMENTS.—The guidelines established by the Secretary under this subsection shall include—

"(A) standards for assessing the energy savings that could reasonably be expected to result from a project;

"(B) examples of financing mechanisms (and portfolios of such financing mechanisms) that qualify as efficiency obligations;

"(C) the threshold levels of energy savings that a project, at the time of issuance of credit support, shall be reasonably expected to achieve to be eligible for credit support;

"(D) the eligibility criteria the Secretary determines to be necessary for making credit support available under this section; and

"(E) any lien priority requirements that the Secretary determines to be necessary.

"(3) EFFICIENCY OBLIGATIONS.—The financing mechanisms qualified by the Secretary under paragraph (2)(B) may include—

"(A) loans, including loans made by the Federal Financing Bank;

"(B) power purchase agreements, including energy efficiency power purchase agreements;

"(C) energy services agreements, including energy performance contracts;

"(D) property assessed clean energy bonds and other tax assessment-based financing mechanisms;

"(E) aggregate on-meter agreements that finance retrofit projects; and

"(F) any other efficiency obligations the Secretary determines to be appropriate.

"(4) PRIORITIES.—In carrying out this section, the Secretary shall prioritize—

"(A) the maximization of energy savings with the available credit support funding;

"(B) the establishment of a clear application and approval process that allows private building owners, lenders, and investors to reasonably expect to receive credit support for projects that conform to guidelines; and

"(C) the distribution of projects receiving credit support under this section across States or geographical regions of the United States.

"(5) MINIMUM ENERGY SAVINGS REQUIREMENT.—

"(A) IN GENERAL.—In carrying out this section, the Secretary shall establish an initial

minimum energy savings requirement for eligible projects that, to the maximum extent practicable, results in the greatest amount of energy savings on a per project basis.

"(B) ADJUSTMENTS.—

"(i) IN GENERAL.—Not less than once each year, the Secretary shall adjust the minimum energy savings requirement described in subparagraph (A) and any other credit support terms the Secretary determines to be necessary, including the maximum percentage of the efficiency obligation that may be guaranteed, taking into account market conditions and the available funding.

"(ii) ADVANCED NOTICE.—If the Secretary adjusts the energy savings requirement, the Secretary shall provide at least 90 days advanced public notice.

"(d) LIMITATION.—Notwithstanding section 1702(c), the Secretary shall not issue credit support under this section in an amount that exceeds—

"(1) 90 percent of the principal amount of the efficiency obligation that is the subject of the credit support; or

"(2) $10,000,000 for any single project.

"(e) AGGREGATION OF PROJECTS.—To the extent provided in the guidelines developed in accordance with subsection (c), the Secretary may issue credit support on a portfolio, or pool of projects, that are not required to be geographically contiguous, if each efficiency obligation in the pool fulfills the requirements described in this section.

"(f) APPLICATION.—

"(1) IN GENERAL.—To be eligible to receive credit support under this section, the applicant shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be necessary.

"(2) CONTENTS.—An application submitted under this section shall include assurances by the applicant that—

"(A) each contractor carrying out the project meets minimum experience level criteria, including local retrofit experience, as determined by the Secretary;

"(B) the project is reasonably expected to achieve energy savings, as set forth in the application using any methodology that meets the standards described in the program guidelines;

"(C) the project meets any technical criteria described in the program guidelines;

"(D) the recipient of the credit support and the parties to the efficiency obligation will provide the Secretary with—

"(i) any information the Secretary requests to assess the energy savings that result from the project, including historical energy usage data and detailed descriptions of the building work, as described in the program guidelines; and

"(ii) permission to access information relating to building operations and usage for the period described in the program guidelines; and

"(E) any other assurances that the Secretary determines to be necessary.

"(3) DETERMINATION.—Not later than 90 days after receiving an application, the Secretary shall make a final determination on the application, which may include requests for additional information.

"(g) FEES.—

"(1) IN GENERAL.—In addition to the fees required by section 1702(h)(1), the Secretary may

charge reasonable fees for credit support provided under this section.

''(2) AVAILABILITY.—Fees collected under this section shall be subject to section 1702(h)(2).

''(h) UNDERWRITING.—The Secretary may delegate the underwriting activities under this section to 1 or more entities that the Secretary determines to be qualified.

''(i) REPORT.—Not later than 1 year after commencement of the program, the Secretary shall submit to the appropriate committees of Congress a report that describes in reasonable detail—

''(1) the manner in which this section is being carried out;

''(2) the number and type of projects supported;

''(3) the types of funding mechanisms used to provide credit support to projects;

''(4) the energy savings expected to result from projects supported by this section;

''(5) any tracking efforts the Secretary is using to calculate the actual energy savings produced by the projects; and

''(6) any plans to improve the tracking efforts described in paragraph (5).

''(j) FUNDING.—

''(1) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $400,000,000 for the period of fiscal years 2012 through 2021, to remain available until expended.

''(2) ADMINISTRATIVE COSTS.—Not more than 1 percent of any amounts made available to the Secretary under paragraph (1) may be used by the Secretary for administrative costs incurred in carrying out this section.''.

TITLE III—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing Energy Efficiency

SEC. 301. STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.

Section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371h–1) is amended—

(1) in the section heading, by inserting ''**AND INDUSTRY**'' before the period at the end;

(2) by redesignating subsections (h) and (i) as subsections (i) and (j), respectively; and

(3) by inserting after subsection (g) the following:

‘‘(h) STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.—

‘‘(1) IN GENERAL.—The Secretary shall carry out a program under which the Secretary shall provide grants to eligible lenders to pay the Federal share of creating a revolving loan program under which loans are provided to commercial and industrial manufacturers to implement commercially available technologies or processes that significantly—

‘‘(A) reduce systems energy intensity, including the use of energy-intensive feedstocks; and

‘‘(B) improve the industrial competitiveness of the United States.

‘‘(2) ELIGIBLE LENDERS.—To be eligible to receive cost-matched Federal funds under this subsection, a lender shall—

‘‘(A) be a community and economic development lender that the Secretary certifies meets the requirements of this subsection;

‘‘(B) lead a partnership that includes participation by, at a minimum—

‘‘(i) a State government agency; and

‘‘(ii) a private financial institution or other provider of loan capital;

"(C) submit an application to the Secretary, and receive the approval of the Secretary, for cost-matched Federal funds to carry out a loan program described in paragraph (1); and

"(D) ensure that non-Federal funds are provided to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out a revolving loan program described in paragraph (1).

"(3) AWARD.—The amount of cost-matched Federal funds provided to an eligible lender shall not exceed $100,000,000 for any fiscal year.

"(4) RECAPTURE OF AWARDS.—

"(A) IN GENERAL.—An eligible lender that receives an award under paragraph (1) shall be required to repay to the Secretary an amount of cost-match Federal funds, as determined by the Secretary under subparagraph (B), if the eligible lender is unable or unwilling to operate a program described in this subsection for a period of not less than 10 years beginning on the date on which the eligible lender first receives funds made available through the award.

"(B) DETERMINATION BY SECRETARY.—The Secretary shall determine the amount of cost-match Federal funds that an eligible lender shall be required to repay to the Secretary under subparagraph (A) based on the consideration by the Secretary of—

"(i) the amount of non-Federal funds matched by the eligible lender;

"(ii) the amount of loan losses incurred by the revolving loan program described in paragraph (1); and

"(iii) any other appropriate factor, as determined by the Secretary.

"(C) USE OF RECAPTURED COST-MATCH FEDERAL FUNDS.—The Secretary may distribute to eligible lenders under this subsection each amount received by the Secretary under this paragraph.

"(5) ELIGIBLE PROJECTS.—A program for which cost-matched Federal funds are provided under this subsection shall be designed to accelerate the implementation of industrial and commercial applications of technologies or processes (including applications or technologies that use sensors, meters, information networks, controls, and drives or that

have been installed pursuant to an energy savings performance contract) that—

"(A) improve energy efficiency, power factor, or load management;

"(B) enhance the industrial competitiveness of the United States; and

"(C) achieve such other goals as the Secretary determines to be appropriate.

"(6) EVALUATION.—The Secretary shall evaluate applications for cost-matched Federal funds under this subsection on the basis of—

"(A) the description of the program to be carried out with the cost-matched Federal funds;

"(B) the commitment to provide non-Federal funds in accordance with paragraph (2)(D);

"(C) program sustainability over a 10-year period;

"(D) the capability of the applicant;

"(E) the quantity of energy savings or energy feedstock minimization;

"(F) the advancement of the goal under this Act of 25-percent energy avoidance;

"(G) the ability to fund energy efficient projects not later than 120 days after the date of the grant award; and

"(H) such other factors as the Secretary determines appropriate.

"(7) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $700,000,000 for the period of fiscal years 2012 through 2021, to remain available until expended.".

SEC. 302. COORDINATION OF RESEARCH AND DEVELOPMENT OF ENERGY EFFICIENT TECHNOLOGIES FOR INDUSTRY.

(a) IN GENERAL.—As part of the research and development activities of the Industrial Technologies Program of the Department of Energy, the Secretary shall establish, as appropriate, collaborative research and development partnerships with other programs within the Office of Energy Efficiency and Renewable Energy (including the Building Technologies Program), the Office of Electricity Delivery and Energy Reliability, and the Office of Science that—

(1) leverage the research and development expertise of those programs to promote early stage energy efficiency technology development;

(2) support the use of innovative manufacturing processes and applied research for development, demonstration, and commercialization of new technologies and processes to improve efficiency, reduce emissions, reduce industrial waste, and improve industrial cost-competitiveness; and

(3) apply the knowledge and expertise of the Industrial Technologies Program to help achieve the program goals of the other programs.

(b) REPORTS.—Not later than 2 years after the date of enactment of this Act and biennially thereafter, the Secretary shall submit to Congress a report that describes actions taken to carry out subsection (a) and the results of those actions.

SEC. 303. ENERGY EFFICIENT TECHNOLOGIES ASSESSMENT.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary shall commence an assessment of commercially available, cost competitive energy efficiency technologies that are not widely implemented within the United States for the energy-intensive industries of—

(1) steel;

(2) aluminum;

(3) forest and paper products;

(4) food processing;

(5) metal casting;

(6) glass;

(7) chemicals;

(8) petroleum refining;

(9) cement;

(10) information and communication technologies; and

(11) other industries that (as determined by the Secretary)—

(A) use large quantities of energy;

(B) emit large quantities of greenhouse gases; or

(C) use a rapidly increasing quantity of energy.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall publish a report, in collaboration with affected energy-intensive industries, based on the assessment conducted under subsection (a), that contains—

(1) a detailed inventory describing the cost, energy, and greenhouse gas emission savings of each technology described in subsection (a);

(2) for each technology, the total cost, energy, and greenhouse gas emissions savings if the tech-

nology is implemented throughout the industry of the United States;

(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;

(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;

(5) recommendations on how to create jobs in the United States through private sector collaboration of energy service providers and energy-intensive industries; and

(6) an assessment of energy savings available from increased use of recycled material in energy-intensive manufacturing processes.

SEC. 304. FUTURE OF INDUSTRY PROGRAM.

(a) IN GENERAL.—Section 452 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111) is

amended by striking the section heading and inserting the following: ''**FUTURE OF INDUSTRY PROGRAM**''.

(b) DEFINITION OF ENERGY SERVICE PROVIDER.—Section 452(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(a)) is amended—

(1) by redesignating paragraphs (3) through (5) as paragraphs (4) through (6), respectively; and

(2) by inserting after paragraph (3):

''(5) ENERGY SERVICE PROVIDER.—The term 'energy service provider' means any private company or similar entity providing technology or services to improve energy efficiency in an energy-intensive industry.''.

(c) INDUSTRY-SPECIFIC ROAD MAPS.—Section 452(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(c)(2)) is amended—

(1) in subparagraph (E), by striking ''and'' at the end;

(2) by redesignating subparagraph (F) as subparagraph (G); and

(3) by inserting after subparagraph (E) the following:

''(F) research to establish (through the Industrial 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 subprocess;

"(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";

(C) in subparagraph (A) (as redesignated by subparagraph (A)), by inserting before the semicolon at the end the following: ", including assessments of sustainable manufacturing goals and the implementation of information technology advancements for supply chain analysis, logistics, system monitoring, industrial and manufacturing processes, and other purposes"; and

(D) by adding at the end the following:

"(2) CENTERS OF EXCELLENCE.—

"(A) IN GENERAL.—The Secretary shall establish a Center of Excellence at up to 10 of the highest performing industrial research and assessment centers, as determined by the Secretary.

"(B) DUTIES.—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence.

"(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to support each Center of Excellence not less than

~~$500,000 for fiscal year 2012 and each fiscal year thereafter, as determined by the Secretary.~~

~~"(3) EXPANSION OF CENTERS.—The Secretary shall provide funding to establish additional industrial research and assessment centers at institutions of higher education that do not have industrial research and assessment centers established under paragraph (1), taking into account the size of, and potential energy efficiency savings for, the manufacturing base within the region of the proposed center.~~

~~"(4) COORDINATION.—~~

~~"(A) IN GENERAL.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—~~

~~"(i) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Standards and Technology;~~

~~"(ii) coordinate with the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;~~

~~"(iii) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise and~~

technologies of the National Laboratories for national industrial and manufacturing needs;

"(iv) increase partnerships with energy service providers to leverage private sector expertise and accelerate deployment of new and existing technologies and processes for energy efficiency, power factor, and load management;

"(v) identify opportunities for reducing greenhouse gas emissions; and

"(vi) promote sustainable manufacturing practices for small- and medium-sized manufacturers.

"(5) OUTREACH.—The Secretary shall provide funding for—

"(A) outreach activities by the industrial research and assessment centers to inform small- and medium-sized manufacturers of the information, technologies, and services available; and

"(B) a full-time equivalent employee at each center of excellence whose primary mission shall be to coordinate and leverage the efforts of the center with—

"(i) Federal and State efforts;

"(ii) the efforts of utilities and energy service providers;

"(iii) the efforts of regional energy efficiency organizations; and

"(iv) the efforts of other centers in the region of the center of excellence.

"(6) WORKFORCE TRAINING.—

"(A) IN GENERAL.—The Secretary shall pay the Federal share of associated internship programs under which students work with or for industries, manufacturers, and energy service providers to implement the recommendations of industrial research and assessment centers.

"(B) FEDERAL SHARE.—The Federal share of the cost of carrying out internship programs described in subparagraph (A) shall be 50 percent.

"(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to carry out this paragraph not less than $5,000,000 for fiscal year 2012 and each fiscal year thereafter.

''(7) SMALL BUSINESS LOANS.—The Administrator of the Small Business Administration shall, to the maximum practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) to implement recommendations of industrial research and assessment centers established under paragraph (1).''.

(c) AUTHORIZATION OF APPROPRIATIONS.—Section 452(f) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(f)) is amended—

(1) in paragraph (1)—

(A) in subparagraph (C), by striking ''$196,000,000'' and inserting ''$216,000,000'';

(B) in subparagraph (D), by striking ''$202,000,000'' and inserting ''$232,000,000''; and

(C) in subparagraph (E), by striking ''$208,000,000'' and inserting ''$248,000,000''; and

(2) by adding at the end the following:

''(4) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—Of the amounts made available under paragraph (1), the Secretary shall use to provide

funding to industrial research and assessment centers under subsection (c) not less than—

"(A) $20,000,000 for fiscal year 2012;

"(B) $30,000,000 for fiscal year 2013; and

"(C) $40,000,000 for fiscal year 2014 and each fiscal year thereafter.".

SEC. 305. SUSTAINABLE MANUFACTURING INITIATIVE.

(a) IN GENERAL.—Part E of title III of the Energy Policy and Conservation Act (42 U.S.C. 6341) is amended by adding at the end the following:

"SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

"(a) IN GENERAL.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a sustainable manufacturing initiative under which the Secretary, on the request of a manufacturer, shall conduct onsite technical assessments to identify opportunities for—

"(1) maximizing the energy efficiency of industrial processes and cross-cutting systems;

"(2) preventing pollution and minimizing waste;

"(3) improving efficient use of water in manufacturing processes;

"(4) conserving natural resources; and

"(5) achieving such other goals as the Secretary determines to be appropriate.

''(b) COORDINATION.—The Secretary shall carry out the initiative in coordination with the private sector and appropriate agencies, including the National Institute of Standards and Technology to accelerate adoption of new and existing technologies or processes that improve energy efficiency.

''(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to research, develop, and demonstrate new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency of industrial systems, reduce pollution, and conserve natural resources.

''(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.''.

(b) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by adding at the end of the items relating to part E of title III the following:

''Sec. 376. Sustainable manufacturing initiative.''.

SEC. 306. STUDY OF ADVANCED ENERGY TECHNOLOGY MANUFACTURING CAPABILITIES IN THE UNITED STATES.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary shall enter into an arrangement with the National Academy of Sciences under which the Academy shall conduct a study of the development of advanced manufacturing capabilities for various energy technologies, including—

(1) an assessment of the manufacturing supply chains of established and emerging industries;

(2) an analysis of—

(A) the manner in which supply chains have changed over the 25-year period ending on the date of enactment of this Act;

(B) current trends in supply chains; and

(C) the energy intensity of each part of the supply chain and opportunities for improvement;

(3) for each technology or manufacturing sector, an analysis of which sections of the supply chain are critical for the United States to retain or develop to be competitive in the manufacturing of the technology;

(4) an assessment of which emerging energy technologies the United States should focus on to create or enhance manufacturing capabilities; and

(5) recommendations on leveraging the expertise of energy efficiency and renewable energy user facilities so that best materials and manufacturing practices are designed and implemented.

(b) REPORT.—Not later than 2 years after the date on which the Secretary enters into the agreement with the Academy described in subsection (a), the Academy shall submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Secretary a report describing the results of the study required under this section, including any findings and recommendations.

SEC. 307. INDUSTRIAL TECHNOLOGIES STEERING COMMITTEE.

The Secretary shall establish an advisory steering committee that includes national trade associations representing energy-intensive industries or energy service providers to provide recommendations to the Secretary on planning and implementation of the Industrial Technologies Program of the Department of Energy.

SEC. 308. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this subtitle.

Subtitle B—Supply Star

SEC. 311. SUPPLY STAR.

Part B of title III of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by inserting after section 324B (as added by section 118(a)) the following:

"SEC. 324C. SUPPLY STAR PROGRAM.

"(a) IN GENERAL.—There is established within the Department of Energy a Supply Star program to identify and promote practices, recognize companies, and, as appropriate, recognize products that use highly efficient supply chains in a manner that conserves energy, water, and other resources.

"(b) COORDINATION.—In carrying out the program described in subsection (a), the Secretary shall—

"(1) consult with other appropriate agencies; and

"(2) coordinate efforts with the Energy Star program established under section 324A.

"(c) DUTIES.—In carrying out the Supply Star program described in subsection (a), the Secretary shall—

"(1) promote practices, recognize companies, and, as appropriate, recognize products that comply

with the Supply Star program as the preferred practices, companies, and products in the marketplace for maximizing supply chain efficiency;

"(2) work to enhance industry and public awareness of the Supply Star program;

"(3) collect and disseminate data on supply chain energy resource consumption;

"(4) develop and disseminate metrics, processes, and analytical tools (including software) for evaluating supply chain energy resource use;

"(5) develop guidance at the sector level for improving supply chain efficiency;

"(6) work with domestic and international organizations to harmonize approaches to analyzing supply chain efficiency, including the development of a consistent set of tools, templates, calculators, and databases; and

"(7) work with industry, including small businesses, to improve supply chain efficiency through activities that include—

"(A) developing and sharing best practices; and

"(B) providing opportunities to benchmark supply chain efficiency.

''(d) EVALUATION.—In any evaluation of supply chain efficiency carried out by the Secretary with respect to a specific product, the Secretary shall consider energy consumption and resource use throughout the entire lifecycle of a product, including production, transport, packaging, use, and disposal.

''(e) GRANTS AND INCENTIVES.—

''(1) IN GENERAL.—The Secretary may award grants or other forms of incentives on a competitive basis to eligible entities, as determined by the Secretary, for the purposes of—

''(A) studying supply chain energy resource efficiency; and

''(B) demonstrating and achieving reductions in the energy resource consumption of commercial products through changes and improvements to the production supply and distribution chain of the products.

''(2) USE OF INFORMATION.—Any information or data generated as a result of the grants or incentives described in paragraph (1) shall be used to inform the development of the Supply Star Program.

''(f) TRAINING.—The Secretary shall use funds to support professional training programs to develop and

communicate methods, practices, and tools for improving supply chain efficiency.

''(g) EFFECT OF IMPACT ON CLIMATE CHANGE.—For purposes of this section, the impact on climate change shall not be a factor in determining supply chain efficiency.

''(h) EFFECT OF OUTSOURCING OF AMERICAN JOBS.—For purposes of this section, the outsourcing of American jobs in the production of a product shall not count as a positive factor in determining supply chain efficiency.

''(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as are necessary.''.

Subtitle C—Electric Motor Rebate Program

SEC. 321. ENERGY SAVING MOTOR CONTROL REBATE PROGRAM.

(a) ESTABLISHMENT.—Not later than January 1, 2012, the Secretary of Energy (referred to in this section as the ''Secretary'') shall establish a program to provide rebates for expenditures made by entities for the purchase and installation of a new constant speed electric motor control that reduces motor energy use by not less than 5 percent.

(b) REQUIREMENTS.—

(1) APPLICATION.—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including—

(A) demonstrated evidence that the entity purchased a constant speed electric motor control that reduces motor energy use by not less than 5 percent; and

(B) the physical nameplate of the installed motor of the entity to which the energy saving motor control is attached.

(2) AUTHORIZED AMOUNT OF REBATE.—The Secretary may provide to an entity that meets the requirements of paragraph (1) a rebate the amount of which shall be equal to the product obtained by multiplying—

(A) the nameplate horsepower of the electric motor to which the energy saving motor control is attached; and

(B) $25.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section

~~$5,000,000 for each of fiscal years 2012 through 2016, to remain available until expended.~~

~~TITLE IV—FEDERAL AGENCY ENERGY EFFICIENCY~~

~~SEC. 401. ADOPTION OF PERSONAL COMPUTER POWER SAVINGS TECHNIQUES BY FEDERAL AGENCIES.~~

~~(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy, in consultation with the Secretary of Defense, the Secretary of Veterans Affairs, and the Administrator of General Services, shall issue guidance for Federal agencies to employ advanced tools allowing energy savings through the use of computer hardware, energy efficiency software, and power management tools.~~

~~(b) REPORTS ON PLANS AND SAVINGS.—Not later than 90 days after the date of the issuance of the guidance under subsection (a), each Federal agency shall submit to the Secretary of Energy a report that describes—~~

~~(1) the plan of the agency for implementing the guidance within the agency; and~~

~~(2) estimated energy and financial savings from employing the tools described in subsection (a).~~

SEC. 402. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.

Section 3307 of title 40, United States Code, is amended—

(1) by redesignating subsections (d) through (h) as subsections (e) through (i), respectively; and

(2) by inserting after subsection (c) the following:

"(d) AVAILABILITY OF FUNDS FOR DESIGN UPDATES.—

"(1) IN GENERAL.—Subject to paragraph (2), for any project for which congressional approval is received under subsection (a) and for which the design has been substantially completed but construction has not begun, the Administrator of General Services may use appropriated funds to update the project design to meet applicable Federal building energy efficiency standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834) and other requirements established under section 3312.

"(2) LIMITATION.—The use of funds under paragraph (1) shall not exceed 125 percent of the estimated energy or other cost savings associated with the updates as determined by a life-cycle cost analysis under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254).".

SEC. 403. BEST PRACTICES FOR ADVANCED METERING.

Section 543(c) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)) is amended by striking paragraph (3) and inserting the following:

"(3) PLAN.—

"(A) IN GENERAL.—Not later than 180 days after the date on which guidelines are established under paragraph (2), in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing the manner in which the agency will implement the requirements of paragraph (1), including—

"(i) how the agency will designate personnel primarily responsible for achieving the requirements; and

"(ii) a demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices (as those terms are used in paragraph (1)), are not practicable.

"(B) UPDATES.—Reports submitted under subparagraph (A) shall be updated annually.

"(4) BEST PRACTICES REPORT.—

"(A) IN GENERAL.—Not later than 180 days after the date of enactment of the Energy

Savings and Industrial Competitiveness Act of 2011, the Secretary of Energy, in consultation with the Secretary of Defense and the Administrator of General Services, shall develop, and issue a report on, best practices for the use of advanced metering of energy use in Federal facilities, buildings, and equipment by Federal agencies.

"(B) UPDATING.—The report described under subparagraph (A) shall be updated annually.

"(C) COMPONENTS.—The report shall include, at a minimum—

"(i) summaries and analysis of the reports by agencies under paragraph (3);

"(ii) recommendations on standard requirements or guidelines for automated energy management systems, including—

"(I) potential common communications standards to allow data sharing and reporting;

"(II) means of facilitating continuous commissioning of buildings and evidence-based maintenance of buildings and building systems; and

"(III) standards for sufficient levels of security and protection against cyber threats to ensure systems cannot be controlled by unauthorized persons; and

"(iii) an analysis of—

"(I) the types of advanced metering and monitoring systems being piloted, tested, or installed in Federal buildings; and

"(II) existing techniques used within the private sector or other non-Federal government buildings.".

SEC. 404. FEDERAL ENERGY MANAGEMENT AND DATA COLLECTION STANDARD.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is amended—

(1) by redesignating the second subsection (f) (as added by section 434(a) of Public Law 110–140 (121 Stat. 1614)) as subsection (g); and

(2) in subsection (f)(7), by striking subparagraph (A) and inserting the following:

"(A) IN GENERAL.—For each facility that meets the criteria established by the Secretary under paragraph (2)(B), the energy manager

shall use the web-based tracking system under subparagraph (B)—

"(i) to certify compliance with the requirements for—

"(I) energy and water evaluations under paragraph (3);

"(II) implementation of identified energy and water measures under paragraph (4); and

"(III) follow-up on implemented measures under paragraph (5); and

"(ii) to publish energy consumption data on an individual facility basis.".

SEC. 405. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.

Section 804(4) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(4)) is amended—

(1) in subparagraph (A), by striking "or" after the semicolon;

(2) in subparagraph (B), by striking the period at the end and inserting "; or"; and

(3) by adding at the end the following:

"(C) a measure to support the use of electric vehicles or the fueling or charging infrastructure necessary for electric vehicles.".

SEC. 406. BROADENING DEFINITION OF RENEWABLE ENERGY TO INCLUDE THERMAL.

Section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852) is amended—

(1) in subsection (a), in the matter preceding paragraph (1), by striking ''electric'';

(2) by redesignating subsection (d) as subsection (e); and

(3) by inserting after subsection (c) the following:

''(d) SEPARATE CALCULATION.—Renewable energy produced at a Federal facility, on Federal land, or on Indian land (as defined in section 2601 of the Energy Policy Act of 1992 (25 U.S.C. 3501))—

''(1) shall be calculated separately from renewable energy used; and

''(2) may be used individually or in combination to comply with subsection (a).''.

SEC. 407. STUDY ON FEDERAL DATA CENTER CONSOLIDATION.

(a) IN GENERAL.—The Secretary of Energy shall conduct a study on the feasibility of a government-wide data center consolidation, with an overall Federal target of a minimum of 800 Federal data center closures by October 1, 2015.

(b) COORDINATION.—In conducting the study, the Secretary shall coordinate with Federal data center program managers, facilities managers, and sustainability officers.

(c) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report that describes the results of the study, including a description of agency best practices in data center consolidation.

TITLE V—MISCELLANEOUS

SEC. 501. BUDGETARY EFFECTS.

The budgetary effects of this Act, for the purpose of complying with the Statutory Pay-As-You-Go Act of 2010, shall be determined by reference to the latest statement titled ''Budgetary Effects of PAYGO Legislation'' for this Act, submitted for printing in the Congressional Record by the Chairman of the Senate Budget Committee, provided that such statement has been submitted prior to the vote on passage.

SEC. 502. ADVANCE APPROPRIATIONS REQUIRED.

The authorization of amounts under this Act and the amendments made by this Act shall be effective for any fiscal year only to the extent and in the amount provided in advance in appropriations Acts.

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Energy Savings and Industrial Competitiveness Act of 2011".

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

TITLE I—BUILDINGS

Subtitle A—Building Energy Codes

SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING CODES.

(a) IN GENERAL.—Section 304 of the Energy Conservation and Production Act (42 U.S.C. 6833) is amended to read as follows:

"SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.

"(a) UPDATING NATIONAL MODEL BUILDING ENERGY CODES.—

"(1) IN GENERAL.—The Secretary shall—

"(A) support the development of national model building energy codes, including the updating of ASHRAE and IECC model building energy codes and standards;

"(B) encourage and support the adoption of building energy codes by States, Indian tribes, and, as appropriate, by local governments that meet or exceed the national model building en-

ergy codes, or achieve equivalent or greater energy savings; and

"(C) support full compliance with the State and local codes.

"(2) TARGETS.—

"(A) IN GENERAL.—The Secretary shall support the updating of the national model building energy codes for residential buildings and commercial buildings to enable the achievement of energy savings targets established under subparagraph (B).

"(B) TARGETS.—

"(i) IN GENERAL.—The Secretary shall work with State, Indian tribes, local governments, nationally recognized code and standards developers, and other interested parties to support the updating of national model building energy codes by establishing 1 or more aggregate energy savings targets to achieve the purposes of this section.

"(ii) SEPARATE TARGETS.—The Secretary may establish separate targets for commercial and residential buildings.

"(iii) BASELINES.—The baseline for updating national model codes shall be the

2009 IECC for residential buildings and ASHRAE Standard 90.1–2010 for commercial buildings.

"(iv) SPECIFIC YEARS.—

"(I) IN GENERAL.—Targets for specific years shall be established and revised by the Secretary through rulemaking and coordinated with nationally recognized code and standards developers at a level that—

"(aa) is at the maximum level of energy efficiency that is technologically feasible and lifecycle cost effective, while accounting for the economic considerations under subparagraph (D);

"(bb) is higher than the preceding target; and

"(cc) promotes the achievement of commercial and residential high-performance buildings through high performance energy efficiency (within the meaning of section 401 of the Energy Inde-

pendence and Security Act of 2007 (42 U.S.C. 17061)).

"(II) INITIAL TARGETS.—Not later than 1 year after the date of enactment of this clause, the Secretary shall establish initial targets under this subparagraph.

"(III) DIFFERENT TARGET YEARS.—Subject to subclause (I), prior to the applicable year, the Secretary may set a different target year for any of model codes described in clause (i) if the Secretary determines that a higher target cannot be met.

"(IV) SMALL BUSINESS.—When establishing targets under this subparagraph through rulemaking, the Secretary shall ensure compliance with the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 601 note; Public Law 104–121).

"(C) APPLIANCE STANDARDS AND OTHER FACTORS AFFECTING BUILDING ENERGY USE.—In establishing building code targets under subparagraph (B), the Secretary shall develop and

adjust the targets in recognition of potential savings and costs relating to—

"(i) efficiency gains made in appliances, lighting, windows, insulation, and building envelope sealing;

"(ii) advancement of distributed generation and on-site renewable power generation technologies;

"(iii) equipment improvements for heating, cooling, and ventilation systems;

"(iv) building management systems and SmartGrid technologies to reduce energy use; and

"(v) other technologies, practices, and building systems that the Secretary considers appropriate regarding building plug load and other energy uses.

"(D) ECONOMIC CONSIDERATIONS.—In establishing and revising building code targets under subparagraph (B), the Secretary shall consider the economic feasibility of achieving the proposed targets established under this section and the potential costs and savings for consumers and building owners, including a return on investment analysis.

"(3) TECHNICAL ASSISTANCE TO MODEL CODE-SETTING AND STANDARD DEVELOPMENT ORGANIZATIONS.—

"(A) IN GENERAL.—The Secretary shall, on a timely basis, provide technical assistance to model code-setting and standard development organizations.

"(B) ASSISTANCE.—The assistance shall include, as requested by the organizations, technical assistance in—

"(i) evaluating code or standards proposals or revisions;

"(ii) building energy analysis and design tools;

"(iii) building demonstrations;

"(iv) developing definitions of energy use intensity and building types for use in model codes and standards or in evaluating the efficiency impacts of the codes and standards;

"(v) performance-based standards;

"(vi) evaluating economic considerations under paragraph (2)(D); and

"(vii) developing model codes by Indian tribes in accordance with tribal law.

"(C) AMENDMENT PROPOSALS.—The Secretary may submit timely code and standard amendment proposals to the model code-setting and standard development organizations, with supporting evidence, sufficient to enable the model building energy codes and standards to meet the targets established under paragraph (2)(B).

"(D) ANALYSIS METHODOLOGY.—The Secretary shall make publicly available the entire calculation methodology (including input assumptions and data) used by the Secretary to estimate the energy savings of code or standard proposals and revisions.

"(4) DETERMINATION AND ESTABLISHMENT.—

"(A) REVISION OF MODEL BUILDING CODES AND STANDARDS.—If the provisions of the IECC or ASHRAE Standard 90.1 regarding building energy use are revised, the Secretary shall make a preliminary determination not later than 90 days after the date of the revision, and a final determination not later than 1 year after the date of the revision, on whether the revision will—

"(i) improve energy efficiency in buildings compared to the existing national model building energy code; and

"(ii) meet the applicable targets under paragraph (2)(B).

"(B) CODES OR STANDARDS NOT MEETING TARGETS.—

"(i) IN GENERAL.—If the Secretary makes a preliminary determination under subparagraph (A)(ii) that a code or standard does not meet the targets established under paragraph (2)(B), the Secretary may at the same time provide the model code or standard developer with proposed changes that would result in a model code that meets the targets and with supporting evidence, taking into consideration—

"(I) whether the modified code is technically feasible and life-cycle cost effective;

"(II) available appliances, technologies, materials, and construction practices; and

"(III) the economic considerations under paragraph (2)(D).

"(ii) INCORPORATION OF CHANGES.—

"(I) IN GENERAL.—On receipt of the proposed changes, the model code or standard developer shall have an additional 180 days to incorporate changes into the model code or standard.

"(II) FINAL DETERMINATION.—A final determination under subparagraph (A) shall be on the modified model code or standard.

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

"(D) ESTABLISHMENT BY SECRETARY.—

"(i) IN GENERAL.—If the Secretary makes a negative final determination under subparagraph (A)(ii), the Secretary shall at the same time establish a modified national model building energy code.

"(ii) CODES OR STANDARDS NOT UPDATED.—If the IECC or ASHRAE Standard 90.1 is not revised by a target date under paragraph (2), the Secretary shall, not later than 90 days after the target date, issue a draft of, and not later than 1 year after the target date, establish, a modified national model building energy code.

"(iii) REQUIREMENTS.—Any national model building energy code established under this subparagraph shall—

"(I) meet the targets established under paragraph (2);

"(II) achieve the maximum level of energy savings that is technologically feasible and life-cycle cost-effective, while accounting for the economic considerations under paragraph (2)(D);

"(III) be based on the latest edition of the IECC or ASHRAE Standard 90.1, including any subsequent amendments, addenda, or additions, but may also consider other model codes or standards; and

"(IV) observe and protect the intellectual property rights of nationally recognized code and standards developers.

"(5) ADMINISTRATION.—In carrying out this section, the Secretary shall—

"(A) publish notice of targets, determinations, and national model building energy codes under this section in the Federal Register to provide an explanation of and the basis for such actions, including any supporting modeling, data, assumptions, protocols, and cost-benefit analysis, including return on investment; and

"(B) provide an opportunity for public comment on targets, determinations, and national model building energy codes under this section.

"(b) STATE AND INDIAN TRIBE CERTIFICATION OF BUILDING ENERGY CODE UPDATES.—

"(1) REVIEW AND UPDATING OF CODES BY EACH STATE AND INDIAN TRIBE.—

"(A) IN GENERAL.—Not later than 2 years after the date on which a national model building energy code is established or revised under subsection (a), each State and Indian tribe shall

certify whether or not the State and Indian tribe, respectively, has reviewed and updated the energy provisions of the building code of the State and Indian tribe, respectively.

"(B) DEMONSTRATION.—The certification shall include a demonstration of whether or not the code provisions that are in effect throughout the State and Indian tribe—

"(i) meet or exceed the revised model code; or

"(ii) achieve equivalent or greater energy savings.

"(C) NO MODEL CODE UPDATE.—If the Secretary fails to revise a national model building energy code by the date specified in subsection (a)(4), each State and Indian tribe shall, not later than 2 years after the specified date, certify whether or not the State and Indian tribe, respectively, has reviewed and updated the energy provisions of the building code of the State and Indian tribe, respectively, to meet or exceed the target in subsection (a)(2).

"(2) VALIDATION BY SECRETARY.—Not later than 90 days after a State or Indian tribe certification under paragraph (1), the Secretary shall—

"(A) determine whether the code provisions of the State or Indian tribe, respectively, meet the criteria specified in paragraph (1); and

"(B) if the determination is positive, validate the certification.

"(c) IMPROVEMENTS IN COMPLIANCE WITH BUILDING ENERGY CODES.—

"(1) REQUIREMENT.—

"(A) IN GENERAL.—Not later than 3 years after the date of a certification under subsection (b), each State and Indian tribe shall certify whether or not the State and Indian tribe, respectively, has—

"(i) achieved full compliance under paragraph (3) with the applicable certified State and Indian tribe building energy code or with the associated national model building energy code; or

"(ii) made significant progress under paragraph (4) toward achieving compliance with the applicable certified State and Indian tribe building energy code or with the associated national model building energy code.

"(B) REPEAT CERTIFICATIONS.—If the State or Indian tribe certifies progress toward achieving compliance, the State or Indian tribe shall repeat the certification until the State or Indian tribe certifies that the State or Indian tribe has achieved full compliance, respectively.

"(2) MEASUREMENT OF COMPLIANCE.—A certification under paragraph (1) shall include documentation of the rate of compliance based on—

"(A) independent inspections of a random sample of the buildings covered by the code in the preceding year; or

"(B) an alternative method that yields an accurate measure of compliance.

"(3) ACHIEVEMENT OF COMPLIANCE.—A State or Indian tribe shall be considered to achieve full compliance under paragraph (1) if—

"(A) at least 90 percent of building space covered by the code in the preceding year substantially meets all the requirements of the applicable code specified in paragraph (1), or achieves equivalent or greater energy savings level; or

"(B) the estimated excess energy use of buildings that did not meet the applicable code

specified in paragraph (1) in the preceding year, compared to a baseline of comparable buildings that meet this code, is not more than 5 percent of the estimated energy use of all buildings covered by this code during the preceding year.

"(4) SIGNIFICANT PROGRESS TOWARD ACHIEVEMENT OF COMPLIANCE.—A State or Indian tribe shall be considered to have made significant progress toward achieving compliance for purposes of paragraph (1) if the State or Indian tribe—

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

"(B) has met the most recent target under subparagraph (A).

"(5) VALIDATION BY SECRETARY.—Not later than 90 days after a State or Indian tribe certification under paragraph (1), the Secretary shall—

"(A) determine whether the State or Indian tribe has demonstrated meeting the criteria of this subsection, including accurate measurement of compliance; and

"(B) if the determination is positive, validate the certification.

"(d) STATES OR INDIAN TRIBES THAT DO NOT MEET TARGETS.—

"(1) REPORTING.—A State or Indian tribe that has not made a certification required under subsection (b) or (c) by the applicable deadline shall submit to the Secretary a report on—

"(A) the status of the State or Indian tribe with respect to meeting the requirements and submitting the certification; and

"(B) a plan for meeting the requirements and submitting the certification.

"(2) FEDERAL SUPPORT.—Any State or Indian tribe for which the Secretary has not accepted a certification by a deadline under subsection (b) or (c) may be ineligible for Federal support authorized under this section for code adoption and compliance activities.

"(3) LOCAL GOVERNMENT.—In any State or Indian tribe for which the Secretary has not accepted a certification under subsection (b) or (c), a local government may be eligible for Federal support by meeting the certification requirements of subsections (b) and (c).

"(4) ANNUAL REPORTS BY SECRETARY.—

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

"(i) the status of national model building energy codes;

"(ii) the status of code adoption and compliance in the States and Indian tribes;

"(iii) implementation of this section; and

"(iv) improvements in energy savings over time as result of the targets established under subsection (a)(2)(B).

"(B) IMPACTS.—The report shall include estimates of impacts of past action under this section, and potential impacts of further action, on—

"(i) upfront financial and construction costs, cost benefits and returns (using investment analysis), and lifetime energy use for buildings;

"(ii) resulting energy costs to individuals and businesses; and

"(iii) resulting overall annual building ownership and operating costs.

"(e) TECHNICAL ASSISTANCE TO STATES AND INDIAN TRIBES.—The Secretary shall provide technical assistance to States and Indian tribes to implement the requirements of this section, including procedures and technical analysis for States and Indian tribes—

"(1) to demonstrate that the code provisions of the States and Indian tribes achieve equivalent or greater energy savings than the national model building energy codes;

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

"(3) to improve and implement State residential and commercial building energy codes or otherwise promote the design and construction of energy efficient buildings.

"(f) AVAILABILITY OF INCENTIVE FUNDING.—

"(1) IN GENERAL.—The Secretary shall provide incentive funding to States and Indian tribes—

"(A) to implement the requirements of this section;

"(B) to improve and implement residential and commercial building energy codes, including increasing and verifying compliance with the codes and training of State, tribal, and local

building code officials to implement and enforce the codes; and

"(C) to promote building energy efficiency through the use of the codes.

"(2) ADDITIONAL FUNDING.—Additional funding shall be provided under this subsection for implementation of a plan to achieve and document full compliance with residential and commercial building energy codes under subsection (c)—

"(A) to a State or Indian tribe for which the Secretary has accepted a certification under subsection (b) or (c); and

"(B) in a State or Indian tribe that is not eligible under subparagraph (A), to a local government that is in eligible under this section.

"(3) TRAINING.—Of the amounts made available under this subsection, the State may use amounts required, but not to exceed $750,000 for a State, to train State and local building code officials to implement and enforce codes described in paragraph (2).

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

"(g) STRETCH CODES AND ADVANCED STANDARDS.—

"(1) IN GENERAL.—The Secretary shall provide technical and financial support for the development of stretch codes and advanced standards for residential and commercial buildings for use as—

"(A) an option for adoption as a building energy code by local, tribal, or State governments; and

"(B) guidelines for energy-efficient building design.

"(2) TARGETS.—The stretch codes and advanced standards shall be designed—

"(A) to achieve substantial energy savings compared to the national model building energy codes; and

"(B) to meet targets under subsection (a)(2), if available, at least 3 to 6 years in advance of the target years.

"(h) STUDIES.—The Secretary, in consultation with building science experts from the National Laboratories and institutions of higher education, designers and builders of energy-efficient residential and commercial buildings, code officials, and other stakeholders, shall undertake a study of the feasibility, impact, economics, and merit of—

"(1) code improvements that would require that buildings be designed, sited, and constructed in a

manner that makes the buildings more adaptable in the future to become zero-net-energy after initial construction, as advances are achieved in energy-saving technologies;

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

"(3) legislative options for increasing energy savings from building energy codes, including additional incentives for effective State and local action, and verification of compliance with and enforcement of a code other than by a State or local government.

"(i) VOLUNTARY CODES AND STANDARDS.—Nothwithstanding any other provision of this section, any model building code or standard established under this section shall not be binding on a State, local government, or Indian tribe as a matter of Federal law.

"(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $200,000,000, to remain available until expended.".

(b) DEFINITION OF IECC.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended by adding at the end the following:

"(17) IECC.—The term 'IECC' means the International Energy Conservation Code.

"(18) INDIAN TRIBE.—The term 'Indian tribe' has the meaning given the term in section 4 of the Native American Housing Assistance and Self-Determination Act of 1996 (25 U.S.C. 4103).".

(c) CONFORMING AMENDMENT.—Section 307 of the Energy Conservation and Production Act (42 U.S.C. 6836) is repealed.

Subtitle B—Worker Training and Capacity Building

SEC. 111. BUILDING TRAINING AND ASSESSMENT CENTERS.

(a) IN GENERAL.—The Secretary of Energy shall provide grants to institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) and Tribal Colleges or Universities (as defined in section 316(b) of that Act (20 U.S.C. 1059c(b)) to establish building training and assessment centers—

(1) to identify opportunities for optimizing energy efficiency and environmental performance in buildings;

(2) to promote the application of emerging concepts and technologies in commercial and institutional buildings;

(3) to train engineers, architects, building scientists, building energy permitting and enforcement

officials, and building technicians in energy-efficient design and operation;

(4) to assist institutions of higher education and Tribal Colleges or Universities in training building technicians;

(5) to promote research and development for the use of alternative energy sources and distributed generation to supply heat and power for buildings, particularly energy-intensive buildings; and

(6) to coordinate with and assist State-accredited technical training centers, community colleges, Tribal Colleges or Universities, and local offices of the National Institute of Food and Agriculture and ensure appropriate services are provided under this section to each region of the United States.

(b) COORDINATION AND NONDUPLICATION.—

(1) IN GENERAL.—The Secretary shall coordinate the program with the Industrial Assessment Centers program and with other Federal programs to avoid duplication of effort.

(2) COLLOCATION.—To the maximum extent practicable, building, training, and assessment centers established under this section shall be collocated with Industrial Assessment Centers.

TITLE II—BUILDING EFFICIENCY FINANCE

SEC. 201. LOAN PROGRAM FOR ENERGY EFFICIENCY UPGRADES TO EXISTING BUILDINGS.

Title XVII of the Energy Policy Act of 2005 (42 U.S.C. 16511 et seq.) is amended by adding at the end the following:

"SEC. 1706. BUILDING RETROFIT FINANCING PROGRAM.

"(a) DEFINITIONS.—In this section:

"(1) CREDIT SUPPORT.—The term 'credit support' means a guarantee or commitment to issue a guarantee or other forms of credit enhancement to ameliorate risks for efficiency obligations.

"(2) EFFICIENCY OBLIGATION.—The term 'efficiency obligation' means a debt or repayment obligation incurred in connection with financing a project, or a portfolio of such debt or payment obligations.

"(3) PROJECT.—The term 'project' means the installation and implementation of efficiency, advanced metering, distributed generation, or renewable energy technologies and measures in a building (or in multiple buildings on a given property) that are expected to increase the energy efficiency of the building (including fixtures) in accordance with criteria established by the Secretary.

"(b) ELIGIBLE PROJECTS.—

"(1) IN GENERAL.—Notwithstanding sections 1703 and 1705, the Secretary may provide credit support under this section, in accordance with section 1702.

"(2) INCLUSIONS.—Buildings eligible for credit support under this section include commercial, multifamily residential, industrial, municipal, government, institution of higher education, school, and hospital facilities that satisfy criteria established by the Secretary.

"(c) GUIDELINES.—

"(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Secretary shall—

"(A) establish guidelines for credit support provided under this section; and

"(B) publish the guidelines in the Federal Register; and

"(C) provide for an opportunity for public comment on the guidelines.

"(2) REQUIREMENTS.—The guidelines established by the Secretary under this subsection shall include—

"(A) standards for assessing the energy savings that could reasonably be expected to result from a project;

"(B) examples of financing mechanisms (and portfolios of such financing mechanisms) that qualify as efficiency obligations;

"(C) the threshold levels of energy savings that a project, at the time of issuance of credit support, shall be reasonably expected to achieve to be eligible for credit support;

"(D) the eligibility criteria the Secretary determines to be necessary for making credit support available under this section; and

"(E) notwithstanding subsections (d)(3) and (g)(2)(B) of section 1702, any lien priority requirements that the Secretary determines to be necessary, in consultation with the Director of the Office of Management and Budget, which may include—

"(i) mechanisms to preserve prior lien positions of mortgage lenders and other creditors in buildings eligible for credit support;

"(ii) remedies available to the Secretary under chapter 176 of title 28, United

States Code, in the event of default on the efficiency obligation by the borrower; and

"(iii) measures to limit the exposure of the Secretary to financial risk in the event of default, such as—

"(I) the collection of a credit subsidy fee from the borrower as a loan loss reserve, taking into account the limitation on credit support under subsection (d);

"(II) minimum debt-to-income levels of the borrower;

"(III) minimum levels of value relative to outstanding mortgage or other debt on a building eligible for credit support;

"(IV) allowable thresholds for the percent of the efficiency obligation relative to the amount of any mortgage or other debt on an eligible building;

"(V) analysis of historic and anticipated occupancy levels and rental income of an eligible building;

"(VI) requirements of third-party contractors to guarantee energy savings

that will result from a retrofit project, and whether financing on the efficiency obligation will amortize from the energy savings;

"(VII) requirements that the retrofit project incorporate protocols to measure and verify energy savings; and

"(VIII) recovery of payments equally by the Secretary and the retrofit.

"(3) EFFICIENCY OBLIGATIONS.—The financing mechanisms qualified by the Secretary under paragraph (2)(B) may include—

"(A) loans, including loans made by the Federal Financing Bank;

"(B) power purchase agreements, including energy efficiency power purchase agreements;

"(C) energy services agreements, including energy performance contracts;

"(D) property assessed clean energy bonds and other tax assessment-based financing mechanisms;

"(E) aggregate on-meter agreements that finance retrofit projects; and

"(F) any other efficiency obligations the Secretary determines to be appropriate.

"(4) PRIORITIES.—In carrying out this section, the Secretary shall prioritize—

"(A) the maximization of energy savings with the available credit support funding;

"(B) the establishment of a clear application and approval process that allows private building owners, lenders, and investors to reasonably expect to receive credit support for projects that conform to guidelines;

"(C) the distribution of projects receiving credit support under this section across States or geographical regions of the United States; and

"(D) projects designed to achieve whole-building retrofits.

"(d) LIMITATION.—Notwithstanding section 1702(c), the Secretary shall not issue credit support under this section in an amount that exceeds—

"(1) 90 percent of the principal amount of the efficiency obligation that is the subject of the credit support; or

"(2) $10,000,000 for any single project.

"(e) AGGREGATION OF PROJECTS.—To the extent provided in the guidelines developed in accordance with sub-

section (c), the Secretary may issue credit support on a portfolio, or pool of projects, that are not required to be geographically contiguous, if each efficiency obligation in the pool fulfills the requirements described in this section.

"(f) APPLICATION.—

"(1) IN GENERAL.—To be eligible to receive credit support under this section, the applicant shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be necessary.

"(2) CONTENTS.—An application submitted under this section shall include assurances by the applicant that—

"(A) each contractor carrying out the project meets minimum experience level criteria, including local retrofit experience, as determined by the Secretary;

"(B) the project is reasonably expected to achieve energy savings, as set forth in the application using any methodology that meets the standards described in the program guidelines;

"(C) the project meets any technical criteria described in the program guidelines;

"(D) the recipient of the credit support and the parties to the efficiency obligation will provide the Secretary with—

"(i) any information the Secretary requests to assess the energy savings that result from the project, including historical energy usage data, a simulation-based benchmark, and detailed descriptions of the building work, as described in the program guidelines; and

"(ii) permission to access information relating to building operations and usage for the period described in the program guidelines; and

"(E) any other assurances that the Secretary determines to be necessary.

"(3) DETERMINATION.—Not later than 90 days after receiving an application, the Secretary shall make a final determination on the application, which may include requests for additional information.

"(g) FEES.—

"(1) IN GENERAL.—In addition to the fees required by section 1702(h)(1), the Secretary may charge reasonable fees for credit support provided under this section.

"(2) AVAILABILITY.—Fees collected under this section shall be subject to section 1702(h)(2).

"(h) UNDERWRITING.—The Secretary may delegate the underwriting activities under this section to 1 or more entities that the Secretary determines to be qualified.

"(i) REPORT.—Not later than 1 year after commencement of the program, the Secretary shall submit to the appropriate committees of Congress a report that describes in reasonable detail—

"(1) the manner in which this section is being carried out;

"(2) the number and type of projects supported;

"(3) the types of funding mechanisms used to provide credit support to projects;

"(4) the energy savings expected to result from projects supported by this section;

"(5) any tracking efforts the Secretary is using to calculate the actual energy savings produced by the projects; and

"(6) any plans to improve the tracking efforts described in paragraph (5).

"(j) FUNDING.—

"(1) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $400,000,000 for the

period of fiscal years 2012 through 2021, to remain available until expended.

''(2) ADMINISTRATIVE COSTS.—Not more than 1 percent of any amounts made available to the Secretary under paragraph (1) may be used by the Secretary for administrative costs incurred in carrying out this section.''.

TITLE III—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing Energy Efficiency

SEC. 301. STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.

Section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371h–1) is amended—

*(1) in the section heading, by inserting ''**AND INDUSTRY**'' before the period at the end;*

(2) by redesignating subsections (h) and (i) as subsections (i) and (j), respectively; and

(3) by inserting after subsection (g) the following:

''(h) STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.—

"(1) IN GENERAL.—The Secretary shall carry out a program under which the Secretary shall provide grants to eligible lenders to pay the Federal share of creating a revolving loan program under which loans are provided to commercial and industrial manufacturers to implement commercially available technologies or processes that significantly—

"(A) reduce systems energy intensity, including the use of energy-intensive feedstocks; and

"(B) improve the industrial competitiveness of the United States.

"(2) ELIGIBLE LENDERS.—To be eligible to receive cost-matched Federal funds under this subsection, a lender shall—

"(A) be a community and economic development lender that the Secretary certifies meets the requirements of this subsection;

"(B) lead a partnership that includes participation by, at a minimum—

"(i) a State government agency; and

"(ii) a private financial institution or other provider of loan capital;

"(C) submit an application to the Secretary, and receive the approval of the Secretary,

for cost-matched Federal funds to carry out a loan program described in paragraph (1); and

"(D) ensure that non-Federal funds are provided to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out a revolving loan program described in paragraph (1).

"(3) AWARD.—The amount of cost-matched Federal funds provided to an eligible lender shall not exceed $100,000,000 for any fiscal year.

"(4) RECAPTURE OF AWARDS.—

"(A) IN GENERAL.—An eligible lender that receives an award under paragraph (1) shall be required to repay to the Secretary an amount of cost-match Federal funds, as determined by the Secretary under subparagraph (B), if the eligible lender is unable or unwilling to operate a program described in this subsection for a period of not less than 10 years beginning on the date on which the eligible lender first receives funds made available through the award.

"(B) DETERMINATION BY SECRETARY.—The Secretary shall determine the amount of cost-match Federal funds that an eligible lender shall be required to repay to the Secretary under sub-

paragraph (A) based on the consideration by the Secretary of—

"(i) the amount of non-Federal funds matched by the eligible lender;

"(ii) the amount of loan losses incurred by the revolving loan program described in paragraph (1); and

"(iii) any other appropriate factor, as determined by the Secretary.

"(C) USE OF RECAPTURED COST-MATCH FEDERAL FUNDS.—The Secretary may distribute to eligible lenders under this subsection each amount received by the Secretary under this paragraph.

"(5) ELIGIBLE PROJECTS.—A program for which cost-matched Federal funds are provided under this subsection shall be designed to accelerate the implementation of industrial and commercial applications of technologies or processes (including distributed generation, applications or technologies that use sensors, meters, software, and information networks, controls, and drives or that have been installed pursuant to an energy savings performance contract, project, or strategy) that—

"(A) improve energy efficiency, including improvements in efficiency and use of water, power factor, or load management;

"(B) enhance the industrial competitiveness of the United States; and

"(C) achieve such other goals as the Secretary determines to be appropriate.

"(6) EVALUATION.—The Secretary shall evaluate applications for cost-matched Federal funds under this subsection on the basis of—

"(A) the description of the program to be carried out with the cost-matched Federal funds;

"(B) the commitment to provide non-Federal funds in accordance with paragraph (2)(D);

"(C) program sustainability over a 10-year period;

"(D) the capability of the applicant;

"(E) the quantity of energy savings or energy feedstock minimization;

"(F) the advancement of the goal under this Act of 25-percent energy avoidance;

"(G) the ability to fund energy efficient projects not later than 120 days after the date of the grant award; and

"(H) such other factors as the Secretary determines appropriate.

"(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection, $400,000,000 for each of fiscal years 2012 through 2021.".

SEC. 302. COORDINATION OF RESEARCH AND DEVELOPMENT OF ENERGY EFFICIENT TECHNOLOGIES FOR INDUSTRY.

(a) IN GENERAL.—As part of the research and development activities of the Industrial Technologies Program of the Department of Energy, the Secretary shall establish, as appropriate, collaborative research and development partnerships with other programs within the Office of Energy Efficiency and Renewable Energy (including the Building Technologies Program), the Office of Electricity Delivery and Energy Reliability, and the Office of Science that—

(1) leverage the research and development expertise of those programs to promote early stage energy efficiency technology development;

(2) support the use of innovative manufacturing processes and applied research for development, demonstration, and commercialization of new technologies and processes to improve efficiency (including improvements in efficient use of water), reduce emis-

sions, reduce industrial waste, and improve industrial cost-competitiveness; and

(3) apply the knowledge and expertise of the Industrial Technologies Program to help achieve the program goals of the other programs.

(b) REPORTS.—Not later than 2 years after the date of enactment of this Act and biennially thereafter, the Secretary shall submit to Congress a report that describes actions taken to carry out subsection (a) and the results of those actions.

SEC. 303. ENERGY EFFICIENT TECHNOLOGIES ASSESSMENT.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary shall commence an assessment of commercially available, cost competitive energy efficiency technologies that are not widely implemented within the United States for the energy-intensive industries of—

(1) steel;

(2) aluminum;

(3) forest and paper products;

(4) food processing;

(5) metal casting;

(6) glass;

(7) chemicals;

(8) petroleum refining;

(9) cement;

(10) industrial gases;

(11) information and communication technologies; and

(12) other industries that (as determined by the Secretary)—

(A) use large quantities of energy;

(B) emit large quantities of greenhouse gases; or

(C) use a rapidly increasing quantity of energy.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall publish a report, in collaboration with affected energy-intensive industries, based on the assessment conducted under subsection (a), that contains—

(1) a detailed inventory describing the cost, energy, and greenhouse gas emission savings of each technology described in subsection (a);

(2) for each technology, the total cost, energy, water, and greenhouse gas emissions savings if the technology is implemented throughout the industry of the United States;

(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;

(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;

(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

(6) an assessment of energy savings available from increased use of recycled material in energy-intensive manufacturing processes.

SEC. 304. FUTURE OF INDUSTRY PROGRAM.

*(a) IN GENERAL.—Section 452 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111) is amended by striking the section heading and inserting the following: "**FUTURE OF INDUSTRY PROGRAM**".*

(b) DEFINITION OF ENERGY SERVICE PROVIDER.—Section 452(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(a)) is amended—

(1) by redesignating paragraphs (3) through (5) as paragraphs (4) through (6), respectively; and

(2) by inserting after paragraph (3):

"(5) ENERGY SERVICE PROVIDER.—The term 'energy service provider' means any private company or similar entity providing technology or services to improve energy efficiency in an energy-intensive industry.".

(c) INDUSTRY-SPECIFIC ROAD MAPS.—Section 452(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(c)(2)) is amended—

(1) in subparagraph (E), by striking "and" at the end;

(2) by redesignating subparagraph (F) as subparagraph (G); and

(3) by inserting after subparagraph (E) the following:

"(F) research to establish (through the Industrial Technologies Program and in collaboration 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 subprocess;

"(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";

(C) in subparagraph (A) (as redesignated by subparagraph (A)), by inserting before the semicolon at the end the following: ", including assessments of sustainable manufacturing goals and the implementation of information technology advancements for supply chain analysis,

logistics, system monitoring, industrial and manufacturing processes, and other purposes"; and

(D) by adding at the end the following:

"(2) CENTERS OF EXCELLENCE.—

"(A) IN GENERAL.—The Secretary shall establish a Center of Excellence at up to 10 of the highest performing industrial research and assessment centers, as determined by the Secretary.

"(B) DUTIES.—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence.

"(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to support each Center of Excellence not less than $500,000 for fiscal year 2012 and each fiscal year thereafter, as determined by the Secretary.

"(3) EXPANSION OF CENTERS.—The Secretary shall provide funding to establish additional industrial research and assessment centers at institutions of higher education that do not have industrial research and assessment centers established under paragraph (1), taking into account the size of, and poten-

tial energy efficiency savings for, the manufacturing base within the region of the proposed center.

"(4) COORDINATION.—

"(A) IN GENERAL.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

"(i) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Standards and Technology;

"(ii) coordinate with the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;

"(iii) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise and technologies of the National Laboratories for national industrial and manufacturing needs;

"(iv) increase partnerships with energy service providers and technology providers to leverage private sector expertise and accelerate deployment of new and existing

technologies and processes for energy efficiency, power factor, and load management;

"(v) identify opportunities for reducing greenhouse gas emissions; and

"(vi) promote sustainable manufacturing practices for small- and medium-sized manufacturers.

"(5) OUTREACH.—The Secretary shall provide funding for—

"(A) outreach activities by the industrial research and assessment centers to inform small- and medium-sized manufacturers of the information, technologies, and services available; and

"(B) a full-time equivalent employee at each center of excellence whose primary mission shall be to coordinate and leverage the efforts of the center with—

"(i) Federal and State efforts;

"(ii) the efforts of utilities and energy service providers;

"(iii) the efforts of regional energy efficiency organizations; and

"(iv) the efforts of other centers in the region of the center of excellence.

"(6) WORKFORCE TRAINING.—

"(A) IN GENERAL.—The Secretary shall pay the Federal share of associated internship programs under which students work with or for industries, manufacturers, and energy service providers to implement the recommendations of industrial research and assessment centers.

"(B) FEDERAL SHARE.—The Federal share of the cost of carrying out internship programs described in subparagraph (A) shall be 50 percent.

"(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to carry out this paragraph not less than $5,000,000 for fiscal year 2012 and each fiscal year thereafter.

"(7) SMALL BUSINESS LOANS.—The Administrator of the Small Business Administration shall, to the maximum practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) to implement recommendations of industrial research and assessment centers established under paragraph (1).".

SEC. 305. SUSTAINABLE MANUFACTURING INITIATIVE.

(a) IN GENERAL.—Part E of title III of the Energy Policy and Conservation Act (42 U.S.C. 6341) is amended by adding at the end the following:

"SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

"(a) IN GENERAL.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a sustainable manufacturing initiative under which the Secretary, on the request of a manufacturer, shall conduct onsite technical assessments to identify opportunities for—

"(1) maximizing the energy efficiency of industrial processes and cross-cutting systems;

"(2) preventing pollution and minimizing waste;

"(3) improving efficient use of water in manufacturing processes;

"(4) conserving natural resources; and

"(5) achieving such other goals as the Secretary determines to be appropriate.

"(b) COORDINATION.—The Secretary shall carry out the initiative in coordination with the private sector and appropriate agencies, including the National Institute of Standards and Technology to accelerate adoption of new and existing technologies or processes that improve energy efficiency.

"(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to research, develop, and demonstrate new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency of industrial systems, reduce pollution, and conserve natural resources.

"(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be to carry out this section $10,000,000 for the period of fiscal years 2012 through 2021.".

(b) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by adding at the end of the items relating to part E of title III the following:

"Sec. 376. Sustainable manufacturing initiative.".

SEC. 306. STUDY OF ADVANCED ENERGY TECHNOLOGY MANUFACTURING CAPABILITIES IN THE UNITED STATES.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary shall enter into an arrangement with the National Academy of Sciences under which the Academy shall conduct a study of the development of advanced manufacturing capabilities for various energy technologies, including—

(1) an assessment of the manufacturing supply chains of established and emerging industries;

(2) an analysis of—

(A) the manner in which supply chains have changed over the 25-year period ending on the date of enactment of this Act;

(B) current trends in supply chains; and

(C) the energy intensity of each part of the supply chain and opportunities for improvement;

(3) for each technology or manufacturing sector, an analysis of which sections of the supply chain are critical for the United States to retain or develop to be competitive in the manufacturing of the technology;

(4) an assessment of which emerging energy technologies the United States should focus on to create or enhance manufacturing capabilities; and

(5) recommendations on leveraging the expertise of energy efficiency and renewable energy user facilities so that best materials and manufacturing practices are designed and implemented.

(b) REPORT.—Not later than 2 years after the date on which the Secretary enters into the agreement with the Academy described in subsection (a), the Academy shall submit to the Committee on Energy and Natural Resources

of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Secretary a report describing the results of the study required under this section, including any findings and recommendations.

SEC. 307. INDUSTRIAL TECHNOLOGIES STEERING COMMITTEE.

The Secretary shall establish an advisory steering committee that includes national trade associations representing energy-intensive industries or energy service providers to provide recommendations to the Secretary on planning and implementation of the Industrial Technologies Program of the Department of Energy.

Subtitle B—Supply Star

SEC. 311. SUPPLY STAR.

Part B of title III of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by inserting after section 324A (42 U.S.C. 6294a) the following:

"SEC. 324B. SUPPLY STAR PROGRAM.

"(a) IN GENERAL.—There is established within the Department of Energy a Supply Star program to identify and promote practices, recognize companies, and, as appropriate, recognize products that use highly efficient supply chains in a manner that conserves energy, water, and other resources.

"(b) COORDINATION.—In carrying out the program described in subsection (a), the Secretary shall—

"(1) consult with other appropriate agencies; and

"(2) coordinate efforts with the Energy Star program established under section 324A.

"(c) DUTIES.—In carrying out the Supply Star program described in subsection (a), the Secretary shall—

"(1) promote practices, recognize companies, and, as appropriate, recognize products that comply with the Supply Star program as the preferred practices, companies, and products in the marketplace for maximizing supply chain efficiency;

"(2) work to enhance industry and public awareness of the Supply Star program;

"(3) collect and disseminate data on supply chain energy resource consumption;

"(4) develop and disseminate metrics, processes, and analytical tools (including software) for evaluating supply chain energy resource use;

"(5) develop guidance at the sector level for improving supply chain efficiency;

"(6) work with domestic and international organizations to harmonize approaches to analyzing supply chain efficiency, including the development of a

consistent set of tools, templates, calculators, and databases; and

"(7) work with industry, including small businesses, to improve supply chain efficiency through activities that include—

"(A) developing and sharing best practices; and

"(B) providing opportunities to benchmark supply chain efficiency.

"(d) EVALUATION.—In any evaluation of supply chain efficiency carried out by the Secretary with respect to a specific product, the Secretary shall consider energy consumption and resource use throughout the entire lifecycle of a product, including production, transport, packaging, use, and disposal.

"(e) GRANTS AND INCENTIVES.—

"(1) IN GENERAL.—The Secretary may award grants or other forms of incentives on a competitive basis to eligible entities, as determined by the Secretary, for the purposes of—

"(A) studying supply chain energy resource efficiency; and

"(B) demonstrating and achieving reductions in the energy resource consumption of commercial products through changes and improve-

ments to the production supply and distribution chain of the products.

"(2) USE OF INFORMATION.—Any information or data generated as a result of the grants or incentives described in paragraph (1) shall be used to inform the development of the Supply Star Program.

"(f) TRAINING.—The Secretary shall use funds to support professional training programs to develop and communicate methods, practices, and tools for improving supply chain efficiency.

"(g) EFFECT OF IMPACT ON CLIMATE CHANGE.—For purposes of this section, the impact on climate change shall not be a factor in determining supply chain efficiency.

"(h) EFFECT OF OUTSOURCING OF AMERICAN JOBS.—For purposes of this section, the outsourcing of American jobs in the production of a product shall not count as a positive factor in determining supply chain efficiency.

"(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $10,000,000 for the period of fiscal years 2012 through 2021.".

Subtitle C—Electric Motor Rebate Program

SEC. 321. ENERGY SAVING MOTOR CONTROL REBATE PROGRAM.

(a) ESTABLISHMENT.—Not later than January 1, 2012, the Secretary of Energy (referred to in this section as the "Secretary") shall establish a program to provide rebates for expenditures made by entities for the purchase and installation of a new constant speed electric motor control that reduces motor energy use by not less than 5 percent.

(b) REQUIREMENTS.—

(1) APPLICATION.—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including—

(A) demonstrated evidence that the entity purchased a constant speed electric motor control that reduces motor energy use by not less than 5 percent; and

(B) the physical nameplate of the installed motor of the entity to which the energy saving motor control is attached.

(2) AUTHORIZED AMOUNT OF REBATE.—The Secretary may provide to an entity that meets the requirements of paragraph (1) a rebate the amount of which shall be equal to the product obtained by multiplying—

(A) the nameplate horsepower of the electric motor to which the energy saving motor control is attached; and

(B) $25.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000 for each of fiscal years 2012 and 2013, to remain available until expended.

Subtitle D—Transformer Rebate Program

SEC. 331. ENERGY EFFICIENT TRANSFORMER REBATE PROGRAM.

(a) DEFINITION OF QUALIFIED TRANSFORMER.—In this section, the term "qualified transformer" means a transformer that meets or exceeds the National Electrical Manufacturers Association (NEMA) Premium Efficiency designation, calculated to 2 decimal points, as having 30 percent fewer losses than the NEMA TP-1-2002 efficiency standard for a transformer of the same number of phases and capacity, as measured in kilovolt-amperes.

(b) ESTABLISHMENT.—Not later than January 1, 2012, the Secretary of Energy (referred to in this section as the "Secretary") shall establish a program to provide rebates for expenditures made by owners of commercial buildings and multifamily residential buildings for the purchase and installation of a new energy efficient transformers.

(c) REQUIREMENTS.—

(1) APPLICATION.—To be eligible to receive a rebate under this section, an owner shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including demonstrated evidence that the owner purchased a qualified transformer.

(2) AUTHORIZED AMOUNT OF REBATE.—For qualified transformers, rebates, in dollars per kilovolt-ampere (referred to in this paragraph as "kVA") shall be—

(A) for 3-phase transformers—

(i) with a capacity of not greater than 10 kVA, $15;

(ii) with a capacity of not less than 10 kVA and not greater than 100 kVA, the difference between 15 and the quotient obtained by dividing—

(I) the difference between—

(aa) the capacity of the transformer in kVA; and

(bb) 10; by

(II) 9; and

(iii) with a capacity greater than or equal to 100 kVA, $5; and

(B) for single-phase transformers, 75 percent of the rebate for a 3-phase transformer of the same capacity.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000 for each of fiscal years 2012 and 2013, to remain available until expended.

TITLE IV—FEDERAL AGENCY ENERGY EFFICIENCY

SEC. 401. ADOPTION OF PERSONAL COMPUTER POWER SAVINGS TECHNIQUES BY FEDERAL AGENCIES.

(a) IN GENERAL.—Not later than 360 days after the date of enactment of this Act, the Secretary of Energy, in consultation with the Secretary of Defense, the Secretary of Veterans Affairs, and the Administrator of General Services, shall issue guidance for Federal agencies to employ advanced tools allowing energy savings through the use of

computer hardware, energy efficiency software, and power management tools.

(b) REPORTS ON PLANS AND SAVINGS.—Not later than 180 days after the date of the issuance of the guidance under subsection (a), each Federal agency shall submit to the Secretary of Energy a report that describes—

(1) the plan of the agency for implementing the guidance within the agency; and

(2) estimated energy and financial savings from employing the tools described in subsection (a).

SEC. 402. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.

Section 3307 of title 40, United States Code, is amended—

(1) by redesignating subsections (d) through (h) as subsections (e) through (i), respectively; and

(2) by inserting after subsection (c) the following:

"(d) AVAILABILITY OF FUNDS FOR DESIGN UPDATES.—

"(1) IN GENERAL.—Subject to paragraph (2), for any project for which congressional approval is received under subsection (a) and for which the design has been substantially completed but construction has not begun, the Administrator of General Services may use appropriated funds to update the project design

to meet applicable Federal building energy efficiency standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834) and other requirements established under section 3312.

"(2) LIMITATION.—The use of funds under paragraph (1) shall not exceed 125 percent of the estimated energy or other cost savings associated with the updates as determined by a life-cycle cost analysis under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254).".

SEC. 403. BEST PRACTICES FOR ADVANCED METERING.

Section 543(e) of the National Energy Conservation Policy Act (42 U.S.C. 8253(e) is amended by striking paragraph (3) and inserting the following:

"(3) PLAN.—

"(A) IN GENERAL.—Not later than 180 days after the date on which guidelines are established under paragraph (2), in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing the manner in which the agency will implement the requirements of paragraph (1), including—

"(i) how the agency will designate personnel primarily responsible for achieving the requirements; and

"(ii) a demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices (as those terms are used in paragraph (1)), are not practicable.

"(B) UPDATES.—Reports submitted under subparagraph (A) shall be updated annually.

"(4) BEST PRACTICES REPORT.—

"(A) IN GENERAL.—Not later than 180 days after the date of enactment of the Energy Savings and Industrial Competitiveness Act of 2011, the Secretary of Energy, in consultation with the Secretary of Defense and the Administrator of General Services, shall develop, and issue a report on, best practices for the use of advanced metering of energy use in Federal facilities, buildings, and equipment by Federal agencies.

"(B) UPDATING.—The report described under subparagraph (A) shall be updated annually.

"(C) COMPONENTS.—The report shall include, at a minimum—

"(i) summaries and analysis of the reports by agencies under paragraph (3);

"(ii) recommendations on standard requirements or guidelines for automated energy management systems, including—

"(I) potential common communications standards to allow data sharing and reporting;

"(II) means of facilitating continuous commissioning of buildings and evidence-based maintenance of buildings and building systems; and

"(III) standards for sufficient levels of security and protection against cyber threats to ensure systems cannot be controlled by unauthorized persons; and

"(iii) an analysis of—

"(I) the types of advanced metering and monitoring systems being piloted, tested, or installed in Federal buildings; and

"(II) existing techniques used within the private sector or other non-Federal government buildings.".

SEC. 404. FEDERAL ENERGY MANAGEMENT AND DATA COLLECTION STANDARD.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is amended—

(1) by redesignating the second subsection (f) (as added by section 434(a) of Public Law 110–140 (121 Stat. 1614)) as subsection (g); and

(2) in subsection (f)(7), by striking subparagraph (A) and inserting the following:

"(A) IN GENERAL.—For each facility that meets the criteria established by the Secretary under paragraph (2)(B), the energy manager shall use the web-based tracking system under subparagraph (B)—

"(i) to certify compliance with the requirements for—

"(I) energy and water evaluations under paragraph (3);

"(II) implementation of identified energy and water measures under paragraph (4); and

"(III) follow-up on implemented measures under paragraph (5); and

"(ii) to publish energy and water consumption data on an individual facility basis.".

SEC. 405. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.

Section 804(4) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(4)) is amended—

(1) in subparagraph (A), by striking "or" after the semicolon;

(2) in subparagraph (B), by striking the period at the end and inserting "; or"; and

(3) by adding at the end the following:

"(C) a measure to support the use of electric vehicles or the fueling or charging infrastructure necessary for electric vehicles.".

SEC. 406. FEDERAL PURCHASE REQUIREMENT.

Section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852) is amended—

(1) in subsections (a) and (b)(2), by striking "electric energy" each place it appears and inserting "electric and thermal energy";

(2) by redesignating subsection (d) as subsection (e); and

(3) by inserting after subsection (c) the following:

"(d) SEPARATE CALCULATION.—Renewable energy produced at a Federal facility, on Federal land, or on Indian land (as defined in section 2601 of the Energy Policy Act of 1992 (25 U.S.C. 3501))—

"(1) shall be calculated separately from renewable energy used; and

"(2) may be used individually or in combination to comply with subsection (a).".

SEC. 407. STUDY ON FEDERAL DATA CENTER CONSOLIDATION.

(a) IN GENERAL.—The Secretary of Energy shall conduct a study on the feasibility of a government-wide data center consolidation, with an overall Federal target of a minimum of 800 Federal data center closures by October 1, 2015.

(b) COORDINATION.—In conducting the study, the Secretary shall coordinate with Federal data center program managers, facilities managers, and sustainability officers.

(c) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report that describes the results of the study, including a description of agency best practices in data center consolidation.

TITLE V—MISCELLANEOUS

SEC. 501. OFFSETS.

(a) ZERO-NET ENERGY COMMERCIAL BUILDINGS INITIATIVE.—Section 422(f) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17082(f)) is amended by striking paragraphs (2) through (4) and inserting the following:

"(2) $50,000,000 for each of fiscal years 2009 through 2012;

"(3) $100,000,000 for fiscal year 2013; and

"(4) $200,000,000 for each of fiscal years 2014 through 2018.".

(b) ENERGY SUSTAINABILITY AND EFFICIENCY GRANTS AND LOANS FOR INSTITUTIONS.—Subsection (j) of section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371h–1) (as redesignated by section 301(2)) is amended—

(1) in paragraph (1), by striking "through 2013" and inserting "and 2010, $100,000,000 for each of fiscal years 2011 and 2012, and $250,000,000 for fiscal year 2013"; and

(2) in paragraph (2), by striking "through 2013" and inserting "and 2010, $100,000,000 for each of fiscal years 2011 and 2012, and $425,000,000 for fiscal year 2013".

(c) WASTE ENERGY RECOVERY INCENTIVE PROGRAM.—Section 373(f)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6343(f)(1)) is amended—

(1) by redesignating subparagraph (B) as subparagraph (D); and

(2) by striking subparagraph (A) and inserting the following:

"(A) $100,000,000 for fiscal year 2008;

"(B) $200,000,000 for each of fiscal years 2009 and 2010;

"(C) $100,000,000 for each of fiscal years 2011 and 2012; and".

(d) ENERGY-INTENSIVE INDUSTRIES PROGRAM.—Section 452(f)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(f)(1)) is amended—

(1) in subparagraph (D), by striking "$202,000,000" and inserting "$102,000,000"; and

(2) in subparagraph (E), by striking "$208,000,000" and inserting "$108,000,000".

SEC. 502. BUDGETARY EFFECTS.

The budgetary effects of this Act, for the purpose of complying with the Statutory Pay-As-You-Go-Act of 2010, shall be determined by reference to the latest statement titled "Budgetary Effects of PAYGO Legislation" for this Act, submitted for printing in the Congressional Record by the

Chairman of the Senate Budget Committee, provided that such statement has been submitted prior to the vote on passage.

SEC. 503. ADVANCE APPROPRIATIONS REQUIRED.

The authorization of amounts under this Act and the amendments made by this Act shall be effective for any fiscal year only to the extent and in the amount provided in advance in appropriations Acts.

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112TH CONGRESS
1ST SESSION

S. 1000

[Report No. 112–71]

A BILL

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

SEPTEMBER 6, 2011

Reported with an amendment