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ENERGY SAVINGS AND INDUSTRIAL COMPETITIVENESS ACT

SEPTEMBER 6, 2011.—Ordered to be printed

Mr. BINGAMAN, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 1000]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 1000) to promote energy savings in residential and commercial buildings and industry, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill, as amended, do pass.

The amendment is as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

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 energy 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 life-cycle 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 Independence 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 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, 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 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 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 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) 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 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 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 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 $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.

PURPOSE

The purpose of S. 1000 is to promote energy savings in residential and commercial buildings and industry, and in Federal, local, and Tribal governments.

BACKGROUND AND NEED

Since the 1973 oil embargo and every subsequent energy crisis, studies have shown that the United States could save energy and money by investing in energy efficiency. Today, efficient energy use

and energy technologies are critical to U.S. job creation and competitiveness. In addition, efficient energy use reduces CO_2 emissions and other pollutants. Yet many existing energy efficiency technologies and programs have not been installed or implemented.

The National Academies released a study in 2010 on the potential for energy efficiency in commercial and residential buildings, transportation, and manufacturing *(Real Prospects for Energy Efficiency in the United States).* The study found that the potential for increasing energy efficiency is enormous and could more than offset the Energy Information Administration's projected increases in U.S. consumption through 2030.

The Energy Savings and Industrial Competitiveness Act of 2011 sets out a national strategy to increase the use of energy efficiency technologies in the residential, commercial, federal, and industrial sectors of our economy. The legislation uses a variety of low-cost tools to reduce barriers for private sector efficiency investments and drive the adoption of off-the-shelf technologies that will save money for consumers and businesses, make America more energy independent, and reduce emissions. Efficiency technologies are commercially available today, can be deployed in every state in the nation, and quickly pay for themselves through energy savings.

Commercial and residential buildings combined consume 40 percent of all energy used. The U.S. industrial sector consumes more energy than any other sector of our economy and the Federal Government is the largest single energy consumer in the U.S. S. 1000 targets these three sectors for an energy-efficiency upgrade that will drive economic growth across all regions of the country.

LEGISLATIVE HISTORY

S. 1000 was introduced on May 16, 2011 by Senator Shaheen and Senator Portman, and cosponsored by Senator Coons and Senator Landrieu. The Committee on Energy and Natural Resources held a legislative hearing on S. 1000 on June 9, 2011, and the bill was ordered favorably reported with an amendment in the nature of a substitute on July 14, 2011.

Parts of S. 1000 are similar to legislation introduced in the 111th Congress. Title I, subtitle A, relating to building energy codes, and subtitle B, relating to worker training and capacity building, are similar to sections 241 and 243, respectively, of S. 1462 in the 111th Congress, the American Clean Energy Leadership Act of 2009, an original bill reported by the Committee on Energy and Natural Resources on July 16, 2009.

S. Rept. 111–48. Title II, relating to building efficiency finance, is similar to S. 3780 in the 111th Congress, the Recovery Through Building Renovation Act of 2010, introduced by Senator Shaheen on September 14, 2010. Title III, subtitle A, relating to manufacturing energy efficiency, is similar to title II, subtitle A, of S. 1462 in the 111th Congress. Title III, subtitle B, relating to Supply Star, is similar to S. 3396 in the 111th Congress, the Supply Star Act of 2010, introduced by Senator Bingaman on May 24, 2010. The Committee on Energy and Natural Resources (subcommittee on Energy) held a hearing on S. 3396 on June 15, 2010, S. Hrg. 111–699, and reported it favorably on September 27, 2010. S. Rept. 111–319.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Energy and Natural Resources, in open business session on July 14, 2011, by majority vote of a quorum present recommends that the Senate pass S. 1000, if amended as described herein.

The rollcall vote on reporting the measure was 18 yeas and 3 nays as follows:

YEAS	NAYS
Mr. Bingaman	Mr. Paul
Mr. Wyden	Mr. Heller
Mr. Johnson*	Mr. Corker
Ms. Landrieu	
Ms. Cantwell	
Mr. Sanders	
Ms. Stabenow*	
Mr. Udall	
Mrs. Shaheen	
Mr. Franken*	
Mr. Manchin	
Mr. Coons	
Ms. Murkowski	
Mr. Barrasso	
Mr. Risch*	
Mr. Coats	
Mr. Portman	
Mr. Hoeven	

* Indicates voting by Proxy. Mr. Lee did not vote.

COMMITTEE AMENDMENT

During its consideration of S. 1000, the Committee approved an amendment in the nature of a substitute. The substitute amendment makes numerous changes in the bill as originally introduced, principally, by deleting subtitle B of title I, relating to appliance standards (which the Committee separately reported as S. 398 on May 18, 2011); deleting section 201, relating to the rural energy savings program; adding a new subtitle D to title III, establishing an energy efficient transformer rebate program; adding authorization offsets; and reducing amounts authorized to be appropriated. In addition, during the consideration of the substitute, the Committee adopted an amendment to section 304 of the Energy Conservation and Production Act (as amended by section 1010(a) of the substitute), relating to building energy efficiency codes, which makes it clear that nothing in section 304 requires a State, local government, or Indian tribe to adopt a national model building code or standard established under section 304.

SECTION-BY-SECTION ANALYSIS

TITLE I—BUILDINGS

Subtitle A—Building energy codes

Section 101(a) amends section 304 of the Energy Conservation and Production Act (ECPA) (42 U.S.C. 6833), relating to state building energy efficiency codes.

ECPA section 304(a)(1), as amended, directs the Secretary of Energy to support the development of national model energy codes to enable the achievement of energy savings targets. The Secretary is directed to work with States, Indian Tribes, nationally recognized codes and standards developers, and others to establish 1 or more aggregate energy savings targets to achieve the purposes of this section, and to encourage state and local adoption of the codes and full compliance with the State and local codes.

ECPA section 304(a)(2) directs the Secretary to support updating of the model energy codes for residential buildings and commercial buildings from the baseline of 2009 IECC for residential buildings and ASHRAE standards 90.1–2010. Targets for specific years are to be established by the Secretary though rulemaking and coordinated with nationally recognized codes and standards and are to promote the achievement of high performance buildings through high performance efficiency. The Secretary may consider factors affecting building energy use and economic considerations including a return on investment analysis in setting the targets.

ECPA section 304(a)(3) directs the Secretary to provide technical assistance to model codes and standards organizations. The assistance is to include evaluating codes or standards, proposals, or revisions; building energy analysis and design tools; building demonstrations; developing definitions of energy use intensity and building types; performance-based standards; evaluating economic considerations, and developing model codes by Indian tribes. In addition, the Secretary may submit amendment proposals to enable the code or standard to meet its targets.

ECPA section 304(a)(4) sets forth the procedures for revising model building codes and standards, and for addressing codes or standards that do not meet the targets, or codes and standards that have not been updated, and if necessary, the Secretary may establish a modified national building energy code.

ECPA section 304(a)(5) requires the Secretary to publish notice of targets, determinations, and national model building energy codes in the Federal Register with the explanation of and the basis for such actions. The Secretary shall also provide an opportunity for public comment on targets, determination, and codes under this section.

ECPA section 304(b) requires that, within 2 years of the establishment of national model building codes, States and Indian tribes certify whether they have updated their codes, and whether the codes meet the revised model code or achieve equivalent of greater energy savings. Within 90 days of the State or tribe's certification, the Secretary must determine whether the state or tribal code meets the revised model code, and if so, validate the certification.

ECPA section 304(c) provides that 3 years after the date of a certification under subsection (b), each State and Indian Tribe must certify whether it has achieved full compliance or made significant progress toward achieving compliance, and shall repeat the certification until the State or Indian tribe has achieved full compliance. The section describes measurement of compliance and the achievement of compliance, including annual targets for compliance and active training and enforcement.

ECPA section 304(d)(1) provides that a State or Indian tribe that does not meet its targets shall submit a report to the Secretary on

the status of meeting the requirements and submitting the certification and a plan for meeting the requirements and submitting the certification.

ECPA section 304(d)(2) states that any State or Indian tribe for which the Secretary has not acted on a certification by a deadline under subsection (b) or (c) may be ineligible for Federal support authorized under section 304 for code adoption and compliance activities.

ECPA section 304(d)(3) provides that a local government may be eligible for Federal support by meeting the certification requirements of subsections (b) and (c).

ECPA section 304(e) and (f) direct the Secretary to provide technical assistance to States and Indian tribes to implement the requirements of this section.

ECPA section 304(g) directs the Secretary to provide technical and financial support for Stretch Codes and Advanced Standards.

ECPA section 304(h) authorizes studies of code improvements.

ECPA section 304(i) states that notwithstanding any other purpose of this section, any model building code or standard established in this section shall not be binding on a state established on a State, local government, or Indian tribe as a matter of Federal law.

ECPA section 304(j) authorizes appropriations of $200,000,000 to carry out the section.

Section 101(b) amends section 303 of the Energy Conservation and Production Act to add definitions of "IECC" (the International Energy Conservation Code) and "Indian Tribe," which is given the same meaning given the term in section 4 of the Native American Housing Assistance and Self-Determination Act of 1996.

Subtitle B—Worker training and capacity building

Section 111 directs the Secretary to establish Building Training and Assessment Centers at institutions of higher learning, modeled after the Department of Energy's Industrial Assessment Centers. These centers would identify and promote opportunities, concepts, and technologies for enhancing building energy and environmental performance. They would train engineers, architects, building scientists, building permitting and enforcement officials, and technicians; assist other institutions to train building technicians; promote research and development in clean energy technologies for buildings; and coordinate services with technical training centers, community colleges, and other relevant offices and institutions.

TITLE II—BUILDING EFFICIENCY FINANCE

Section 201 amends Title XVII of the Energy Policy Act of 2005 by adding a new Building Retrofit Financing Program. This program would provide credit guarantees to reduce financing risk for commercial and institutional building energy efficiency projects. The range of financing mechanisms that could be supported by this program would be very broad and would include loans, power purchase agreements, energy service agreements (e.g., energy service performance contracts), property-assessed clean energy bonds or similar tax assessment-based programs, and aggregate on-meter agreements. $400 million would be authorized to be appropriated

for the period of fiscal years 2012–2021, and would remain available until expended.

TITLE III—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing energy efficiency

Section 301 directs the Secretary to carry out a revolving loan program under which loans are provided to commercial and industrial manufacturers to implement commercially available technologies or processes that reduce energy intensity and improve the industrial competitiveness of the United States. The Secretary would provide grants to eligible lenders to pay part of the cost of revolving loan programs to enable commercial and industrial manufacturers to adopt commercially available technologies. Eligible lenders must be community and economic development lenders that lead a partnership that includes a state government agency and a private provider of capital. Federal funds for an eligible lender will be capped at $100,000,000 for any fiscal year, and must be cost matched by non-Federal funds at least dollar-for-dollar.

Section 302 directs the Secretary to establish collaborative research and development partnerships, as appropriate, with other research and development programs in the Department. Such research shall support the use of innovative manufacturing processes and applied research for new technologies and processes to improve efficiency, reduce waste, and improve industrial cost-competitiveness.

Section 303(a) directs the Secretary to begin an assessment of commercially available, cost-competitive energy efficiency technologies that are not widely implemented within the United States for following energy intensive industries: steel, aluminum, forest and paper products, food processing, metal casting, glass, chemicals, petroleum refining, cement, information and communication, and other energy intensive industries (as determined by the Secretary).

Section 303(b) directs the Secretary to publish a report based on the assessment in subsection (a) and in collaboration with the affected energy-intensive industries, not later than 1 year after the date of enactment of this Act. The report shall include estimates of the benefits of adopting the cost-competitive technologies, comparisons with other appropriate countries, recommendations on creating jobs, and energy savings.

Section 304 amends section 452 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111). Subsection (a) amends the section heading.

Section 304(b) adds a definition of the term "Energy Service Provider" to EISA section 452(a).

Section 304(c) directs the Secretary through the Industrial Technologies Program and in collaboration with industry to establish a road mapping process for conducting industry specific studies on the intensity of energy use, greenhouse gas emissions, and operating costs.

Section 304(d) directs the Secretary to establish Centers of Excellence at up to 10 industrial research and assessment centers (IACs). The IACs would coordinate and partner with the Manufacturing Extension Partnership at NIST, existing IACs, and DOE in-

dustrial programs. They would perform outreach to small and medium-sized manufacturers and identify greenhouse gas reduction opportunities. The Secretary shall pay the Federal share for internship programs under which students work for industries and manufacturers. Subject to availability, each Center would receive funding of not less than $500,000 per fiscal year.

Section 305(a) amends part E of title III of the Energy Policy and Conservation Act (42 U.S.C. 6341) by adding a new section 376, which establishes a sustainable manufacturing initiative under the Department of Energy Industrial Technologies program to provide onsite technical assessments to manufacturers. The assessments would identify opportunities to maximize energy efficiency, prevent pollution, minimize waste, and conserve water in the manufacturing process.

Section 306 directs the Secretary to contract with the National Academy of Sciences to conduct a study of the development of advanced manufacturing capabilities for improvements in supply chains. The study would analyze the history, current trends, and opportunities for improvements in supply chains. It would analyze for each technology or manufacturing sector the most critical parts of the supply chain for competitiveness, assess emerging energy technologies, and provide recommendations on leveraging energy efficiency and renewable energy user facilities.

Section 307 directs the Secretary to establish an advisory steering committee including national trade associations representing energy-intensive industries to provide recommendations to the Secretary on planning and implementation of the Industrial Technologies Program.

Subtitle B—Supply Star

Section 311 amends part B of title III of the Energy Policy and Conservation Act is amended to establish a Supply Star program within the Department of Energy to identify practices, companies, and products that use highly efficient supply chains. The program would promote existing efficient supply chain practices in a manner that conserves energy, water, and other resources. The program would collect and disseminate relevant data and metrics. The Department would share best practices, provide benchmarking opportunities, and support professional training, among other initiatives. The program would coordinate efforts with the Energy Star program. The final subsection authorizes the appropriation $10,000,000 for the period of fiscal years 2012 through 2021 to carry out this section.

Subtitle C—Electric motor rebate program

Section 321 directs the Secretary to establish a rebate program to create an incentive for the purchase of new constant speed electric motor controls that reduce a motor's energy use by at least 5 percent. The rebate would be worth $25 per horsepower of the motor. Subsection (c) authorizes appropriation of $5 million for this provision for each fiscal year 2012 through 2016.

TITLE IV—FEDERAL AGENCY ENERGY EFFICIENCY

Section 401 requires Federal Agencies to develop a plan for adopting personal computer power savings techniques.

Section 402 allows the Administrator of General Services to use appropriated funding to update plans for any project that has been approved by Congress and for which construction has not begun. The funds would be used to update the building design to meet energy efficiency standards established in the Energy Conservation and Production Act. Funds used for this purpose could not exceed 125 percent of the estimate energy or other cost savings resulting from the design changes.

Section 403 requires Federal agencies to create an implementation plan, updated annually, for how each agency will achieve the energy conservation requirement under the National Energy Conservation Policy Act, including designating personnel responsible for achieving the requirements. The Secretary of Energy shall develop and issue an annual best-practices report on advanced metering in Federal Facilities in collaboration with the Secretary of Defense and the Administrator of General Services.

Section 404 would, for required facilities, direct energy managers to use a web-based tracking system to certify compliance with energy and water requirements and to provide implementation of energy and water measures to reduce consumption.

Section 405 would expand the definition of energy or water conservation measure in the National Energy Conservation Policy Act to include measures that support the use of electric vehicles and their necessary fueling and charging infrastructure as part of an energy savings contract.

Section 406 would amend the Federal renewable purchase requirement in the Energy Policy Act of 2005 to include thermal as well as electric renewable electricity. Further, the section would require calculation of renewable energy production at Federal facilities, on Federal land, and on Indian lands and allow such production to count toward compliance with the Federal renewable purchase requirement.

Section 407 requires the Secretary to coordinate with program and facility managers to conduct a feasibility study on government-wide data centers with the intention of closing a minimum of 800 Federal data centers. The Secretary shall provide a report to Congress on the results of the study.

TITLE V—MISCELLANEOUS

Section 501 provides offsets for the authorizations in the bill.

Section 502 states that the budgetary effects of the bill under the Statutory Pay-as-You-Go regulations shall be determined by the latest statement on the bill.

Section 503 specifies that authorizations for appropriations shall apply only if such sums are actually appropriated.

COST AND BUDGETARY CONSIDERATIONS

The following estimate of costs of this measure has been provided by the Congressional Budget Office:

S. 1000—Energy Savings and Industrial Competitiveness Act of 2011

Summary: S. 1000 would authorize appropriations to support a variety of activities aimed at promoting energy efficiency in certain

sectors of the economy. Assuming appropriation of the authorized amounts, CBO estimates that implementing S. 1000 would have a net discretionary cost of $1.2 billion over the 2012–2016 period. S. 1000 could affect direct spending; therefore, pay-as-you-go procedures apply. CBO estimates, however, that any such effects would be insignificant in any given year. Enacting S. 1000 would not affect revenues.

S. 1000 would impose an intergovernmental mandate, as defined in the Unfunded Mandates Reform Act (UMRA), by requiring states to certify to the Department of Energy (DOE) whether or not they have updated residential and commercial building codes to meet standards developed by building efficiency organizations. CBO estimates that the cost of that mandate would fall well below the annual threshold established in UMRA ($71 million in 2011, adjusted annually for inflation). The bill contains no private-sector mandates as defined in UMRA.

Estimated cost to the Federal Government: The estimated budgetary impact of S. 1000 is shown in the following table. The costs of this legislation fall within budget function 270 (energy).

	By fiscal year, in millions of dollars—					
	2012	2013	2014	2015	2016	2012–2016
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
New Authorizations:						
Estimated Authorization Level	1,080	460	451	452	453	2,896
Estimated Outlays	313	403	473	513	488	2,190
Reduced Authorizations:						
Authorization Level	−800	−175	0	0	0	−975
Estimated Outlays	−232	−251	−212	−165	−84	−944
Total Proposed Changes:						
Estimated Authorization Level	280	285	451	452	453	1,921
Estimated Outlays	81	152	261	348	404	1,246

Basis of estimate: S. 1000 would have a net discretionary cost of $1.2 billion over the next five years, assuming appropriation action consistent with the bill. The bill also could affect direct spending, but CBO estimates that any such effects would not be significant in any of the next 10 years.

Spending subject to appropriation

S. 1000 would authorize appropriations for a variety of programs and activities aimed at promoting energy efficiency, particularly within residential and commercial buildings and the industrial sector. The bill also would reduce several existing authorizations of appropriations for related activities. Taken as a whole, CBO estimates that implementing S. 1000 would have a net discretionary cost of $1.2 billion over the 2012–2016 period.

New Authorizations. S. 1000 would specifically authorize appropriations totaling $2.7 billion over the 2012–2016 period for DOE to carry out a variety of activities directed toward improving the energy efficiency of buildings and industrial systems. That specified amount includes:

- $2 billion for grants to nonfederal lenders to support efforts by industrial and commercial manufacturers to improve their energy efficiency;

- $400 million to cover the federal government's cost of providing certain types of credit support for projects to upgrade the energy efficiency of existing buildings that are privately owned;
- $200 million to establish national construction codes related to the energy efficiency of residential and commercial buildings and to provide technical assistance related to such codes;
- $20 million to provide rebates to purchasers of certain energy-efficient transformers and devices that reduce energy consumed by motors;
- $20 million for grants and other incentives to improve the efficiency of processes involved in the production and distribution of products; and
- $10 million for onsite assessments of the energy efficiency of manufacturing processes.

In addition, CBO estimates that implementing other provisions of S. 1000 that direct DOE to expand ongoing efforts by DOE and the General Services Administration (GSA) related to building technologies and industrial energy efficiency would require appropriations totaling $256 million over the 2012–2016 period. Most of that amount would be used by GSA to update building designs and implement projects to meet certain energy-efficiency requirements.

In total, assuming appropriation of amounts specified and estimated to be necessary, CBO estimates that implementing S. 1000 would have a gross cost of almost $2.2 billion over the 2012–2016 period, with additional outlays occurring in later years. That estimate is based on historical spending patterns for activities similar to those authorized under S. 1000.

Reduced Authorizations. To offset a portion of increased discretionary spending, S. 1000 would reduce some existing authorizations of appropriations for DOE programs to support a variety of grants, incentives, and initiatives related to industrial energy efficiency and building technologies. In total, S. 1000 would reduce amounts authorized to be appropriated by $975 million over the 2012–2013 period. Assuming future appropriations are reduced accordingly, CBO estimates that implementing S. 1000 would result in $944 million less in discretionary spending for those programs over the 2012–2016 period.

Direct spending

S. 1000 would amend title 17 of the Energy Policy Act of 2005 (title 17), which authorizes DOE to guarantee loans for certain types of energy projects. Specifically, the bill would authorize DOE to provide various forms of credit enhancements to support projects to install certain types of energy-efficient or renewable energy technologies in private and public buildings—including federal buildings. (Credit enhancements are actions that improve the credit worthiness of a project.) The bill does not define the types of credit enhancements that DOE could provide. Any transactions related to issuing or guaranteeing debt would be subject to provisions of the Federal Credit Reform Act (FCRA) that would prohibit DOE from making any obligations without an up-front appropriation to cover the subsidy cost of such arrangements. For purposes of this estimate, CBO assumes that any spending for other forms of credit en-

hancements—for example, grants or payments to project sponsors—would also be subject to appropriation.

CBO also estimates, however, that implementing the proposed program could affect direct spending in two ways. First, S. 1000 would authorize DOE to proceed with loan guarantees in cases where borrowers pay upfront fees to cover anticipated subsidy costs. Normally, DOE's authority to guarantee such loans would be subject to limits specified in annual appropriation acts; however, previously enacted appropriation laws have already authorized DOE to guarantee loans under title 17. CBO does not expect all of that authority to be used by existing programs over the 10-year period covered by this estimate; therefore, a portion of it could be used to guarantee loans under S. 1000. Any resulting net change in the timing of outlays stemming from existing authority would be considered direct spending. However, based on information from DOE about the relatively small amount of loan volume remaining—$400 million—CBO estimates that any change in direct spending resulting from the subsidy cost of using that authority would be insignificant.

Finally, CBO expects that authorizing DOE to provide credit enhancements could result in a marginal increase in federal agencies' use of certain types of contracts and agreements that support energy-efficiency projects. Under current law, federal agencies have a variety of long-term contracting tools—including energy savings performance contracts, power purchase agreements, and enhanced-use leases—that support projects undertaken by nonfederal parties. In some cases, the added benefit of federal credit enhancements provided under S. 1000 could improve the economic viability of marginal projects, increasing the probability that they proceed. In those cases, CBO expects that credit enhancements provided under S. 1000 could result in an increased use of agencies' underlying contracting authorities, which are considered a form of direct spending. CBO estimates, however, that any additional direct spending stemming from such marginal changes in agencies' behavior would be insignificant in any year.

Pay-As-You-Go considerations: Enacting S. 1000 could increase direct spending; therefore, pay-as-you-go procedures apply. CBO estimates, however, that any such effects would be insignificant in each year and over the next 10 years.

Estimated impact on State, local, and tribal governments: S. 1000 would impose an intergovernmental mandate, as defined in UMRA, by requiring states to certify to DOE whether or not they have updated residential and commercial building codes to meet standards developed by building efficiency organizations. Because the mandate cost would just be the cost to provide that certification (regardless of whether building codes are updated), CBO estimates that the cost of that mandate would fall well below the annual threshold established in UMRA ($71 million in 2011, adjusted annually for inflation).

Estimated impact on the private sector: This bill contains no private-sector mandates as defined in UMRA.

Estimate prepared by: Federal costs: Megan Carroll, Kathleen Gramp, and Matthew Pickford; Impact on State, local, and tribal governments: Ryan Miller; Impact on the private sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 1000.

S. 1000 directs the Secretary of Energy to support the development of national model building energy codes and encourage and support States and Indian tribes to adopt building codes that meet or exceed the national model building energy codes. But the measure does not require individuals or businesses to comply with the national model codes.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

S. 1000 requires States and Indian tribes to certify their compliance or progress toward meeting the national model building energy codes, and imposes various reporting and data collecting requirements on the Secretary of Energy and federal energy managers. The Secretary may also require applicants for loans and rebates established under the measure to provide such information as the Secretary may require to implement those programs, but the Committee does not expect the bill's information collecting requirements to impose substantial additional paperwork or recordkeeping burdens, in either time or financial cost, on private individuals or businesses.

CONGRESSIONALLY DIRECTED SPENDING

S. 1000, as ordered reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

The testimony provided by the Department of Energy at the June 6, 2011 Full Committee hearing on S. 1000 follows:

STATEMENT OF KATHLEEN HOGAN, DEPUTY ASSISTANT SECRETARY FOR ENERGY EFFICIENCY, OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY, DEPARTMENT OF ENERGY

Chairman Bingaman, Ranking Member Murkowski and Members of the Committee, thank you for the opportunity to discuss the Department of Energy's (DOE's) energy efficiency and Advanced Vehicles Technology Programs. The Administration is still reviewing the Reducing Federal Energy Dollars Act of 2011 (S. 963), the Energy Savings and Industrial Competitiveness Act of 2011 (S. 1000), and the Alternative Fuel Vehicles Competitiveness and Energy Security Act of 2011 (S. 1001). While the Administration does not take a position at this time, my statement will provide you with information on work DOE is already doing to cre-

ate jobs, build a new clean energy economy, and help save consumers and businesses money through improved energy efficiency.

At EERE, we work to remove the barriers to the rapid conversion of innovative research into commercial products, manufacturing, and jobs. And we work with other federal, state, and local governments to speed the adoption of these American innovations. The new businesses in clean energy production, installation, and operation are playing a key role driving economic growth and job creation.

The market for clean energy technology is growing quickly and many countries have mounted aggressive national efforts to capture market share. China, for example, has moved quickly to dominate the development of next generation clean energy products through low-cost production and investments in research infrastructure. As the President said, "this is our generation's Sputnik moment." To show his clear commitment to our future, he has asked for a significant increase in funding for energy efficiency and renewable energy in the FY12 budget proposal, even in a budget which moves overall domestic discretionary spending to the lowest levels in a generation.

To win the future, we have to be a nation that makes, creates, and innovates. Across the country, we are seeing strong evidence that the out-build and out-innovate pillars the Administration has put forward are paying off. In October of last year, for example, manufacturing posted its first twelve-month gain in more than ten years, and has added close to 250,000 jobs since the December 2009 low. The Administration continues to be optimistic about the prospects for manufacturing in the recovery.

Manufacturing remains one of the most globally competitive economic sectors we have. It also is one of the most visible economic sectors we have, with middle-class Americans clearly understanding the impact that strengthened manufacturing has on their lives and their communities.

The challenges we face mean that we need to move with unprecedented speed and scale. Success is measured by private innovation and investment but can begin with well-crafted federal programs that will help achieve a number of important goals:

- A vigorous and profitable residential and commercial building retrofit industry, cost-effectively saving 30–50 percent of the energy used in existing buildings;
- Solar energy, offshore wind energy, and geothermal plants fully competitive with conventional sources of electricity;
- Fuels that can be drop-in replacements for gasoline, diesel fuel, or jet fuel priced competitively with products produced from petroleum;
- Large fleets of electric and hybrid cars supported by a network of charging stations to support them; and

• Trucks with over 50% improvement in fuel economy.

Small federal investments have led to major breakthroughs like the invention of the internet and Global Positioning Systems or "GPS" found in most cellular devices today. Similarly, EERE investments past, present, and future are critical to achieving these goals. As one example, in 2009, the U.S. had only two, relatively small, factories manufacturing advanced vehicle batteries, and produced less than two percent of the world's hybrid vehicle batteries.[1] But over the next few years, thanks to investments from the American Recovery and Reinvestment Act of 2009 (Recovery Act) in battery and electric drive component manufacturing, and electric drive demonstration and infrastructure, the U.S. will be able to produce enough batteries and components to support 500,000 plug-in and electric vehicles per year. High volume manufacturing, coupled with battery technology advances, design optimization, and material cost reductions, could lead to a drop in battery costs of 50 percent by 2013 compared to 2009, which will lower the cost of electric vehicles, making them accessible to more consumers.

These kinds of breakthroughs are especially important in the transportation sector, which alone accounts for approximately two-thirds of the United States' oil consumption and contributes to one-third of the Nation's greenhouse gas (GHG) emissions.[2] After housing, transportation is the second biggest monthly expense for most American families.[3] As the President said in his recent energy speech, "In an economy that relies so heavily on oil, rising prices at the pump affect everybody." Emphasizing that "there are no quick fixes," the President outlined a portfolio of actions which, taken together, could cut U.S. oil imports by a third by 2025.

The draft legislation being addressed today focuses on three areas:

• Clean energy in the Federal sector
• Energy efficiency in the industrial sector and building codes
• Alternative fuel vehicles

General comments are provided on each of these three areas, but the Department has no comments on the specific content of the legislation, as these bills are currently under review by the Administration.

CLEAN ENERGY IN THE FEDERAL SECTOR

Constructing and operating Federal facilities in a sustainable manner has numerous well-documented benefits, including:

• Saving taxpayer dollars through optimized life-cycle cost-effective actions;

[1] http://www.whitehouse.gov/sites/default/files/blueprint_secure_energy_future.pdf
[2] http://www1.eere.energy.gov/vehiclesandfuels/pdfs/vehicles_fs.pdf
[3] http://www.bls.gov/news.release/cesan.nr0.htm

- Enhancing employee productivity through the provision of safe, healthy and environmentally appealing workplaces;
- Reducing environmental impacts through decreased energy, water, and materials use; and
- Moving the overall market conditions toward higher performance, through the Federal demand for sustainable facilities.

These benefits are sizable, in part, due to the size of the Federal Government. The Federal Government is estimated to use about 1.6 percent of the Nation's total energy, occupy nearly 500,000 buildings, operate more than 600,000 vehicles, and purchase more than $500 billion per year in goods and services.

The Federal government is making substantial progress toward its sustainability goals mandated in EPAct 2005, EISA 2007, and Executive Order 13514, signed by President Obama in October, 2009. For example, in FY 2010, the Federal Government reported a 15 percent decrease in site-delivered Btu per square foot compared with baseline year 2003. This meets the EISA statutory reduction goal for FY 2010.

FY 2010 was also the highest level year to date for the use of Energy Savings Performance Contracting with these contacts totaling more than $560 million in investment in Federal facilities. This type of performance-based contracting is extremely important to meeting the Federal sustainability goals due to the pressures on Federal appropriations and increasing goals for reduced energy intensity, energy savings goals that increase to 30% by 2015.

In FY 2010, Federal agencies also reported purchasing or producing renewable electric energy representing 5.2 percent of the Federal Government's electricity use, achieving the EPAct 2005 goal of five percent. This more than doubled renewable energy use as a percentage of total facility electricity use since 2003. The five percent goal remains in place until FY 2013, when it will increase to 7.5 percent under current statute. Not counted in this metric is the significant amount of non-electric renewable energy produced and purchased by the Government that displaces the need for additional electric generation. This includes thermal energy, such as solar hot water and space heating, geothermal energy, steam from biomass, and landfill methane.

DOE is also making progress to improve the transparency of Federal building energy efficiency, as required under EISA 2007, Section 432. DOE expects to have a web-based system that provides information on the energy efficiency of metered buildings and on the cost-effective improvement opportunities that exist in Federal facilities publicly available by Fall 2011.

ENERGY EFFICIENCY IN THE INDUSTRIAL SECTOR AND BUILDING CODES

The Energy Savings and Industrial Competitiveness Act (S. 1000) outlines new provisions for building codes, appliance standards, and industrial energy efficiency among other areas.

Energy-conserving appliance standards are one of the significant steps the Administration has taken to save energy in homes and businesses nationwide, and pave the way toward a clean energy future for our country.[4] Since January 2009, the Department of Energy has finalized new efficiency standards for more than twenty household and commercial products, which are projected to cumulatively save consumers between $250 billion and $300 billion over the next 20 years.[5] These standards can provide an immediate and economically responsible way to increase the nation's energy security while protecting the environment. Improvements in energy efficiency can be made today to yield significant near-term and long-term economic and environmental benefits for the nation.[6]

In 2007, Congress recognized the importance of negotiated consensus standards, amending the Energy Policy and Conservation Act (EPCA) to allow for an expedited rulemaking process in the event a representative group of stakeholders could reach agreement. Several DOE rules currently under development and review overlap with the proposed consensus standards. Although the agency cannot presuppose the level of the final standards, it is seriously considering these consensus recommendations. The agency's preliminary analyses accompanying the proposed rules for these standards suggest that the potential net benefits from these recommended levels could yield tens of billions of dollars in fuel savings and lower greenhouse gas emissions.

U.S. industry accounts for about one-third of U.S. energy use while contributing to about 12% of U.S. Gross Domestic Product.[7] Improving industrial energy efficiency will result in saving money and enhancing U.S. competitiveness in the world's manufacturing sector. By partnering with the private sector, DOE has already managed to save more than 9.3 quadrillion Btu of energy and reduced carbon emissions by over 206 million metric tons.

Supply chain energy efforts can make an important contribution to overall industrial efficiency and the competitive position of domestic suppliers. Analysis suggests that a large part of the carbon footprint for many consumer products can be attributed to the supply chain—from raw materials, transport, and packaging to the energy consumed in manufacturing processes—on the order of 40 to

[4] http://www.whitehouse.gov/issues/energy-and-environment
[5] http://www.energy.gov/news/9582.htm
[6] See, for example: McKinsey and Company (2007). Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost? (http://www.epa.gov/cleanenergy/documents/suca/cost-effectiveness.pdf) and Lazard Associates. Feb. 2009. Levelized Cost of Energy Analysis Version 3.0.
[7] http://www1.eere.energy.gov/industry/about/pdfs/itp_program_fact_sheet.pdf

60 percent. DOE and the Environmental Protection Agency (EPA) both have existing initiatives that address supply chain efficiency, such as *Save Energy Now*® at DOE and ENERGY STAR. For example, through its national *Save Energy Now*® initiative, DOE encourages manufacturing companies to engage their supply chains in energy and carbon management, while at EPA, ENERGY STAR has engaged whole industries to support their customers and supply chains in building effective energy management programs. Specifically, DOE and EPA develop processes and resources to assist companies in promoting energy management to their industrial suppliers and customers. *Save Energy Now*® LEADER Companies make a voluntary commitment to reduce their energy intensity by 25 percent in 10 years. Many of these companies are interested in improving the efficiency of their supply chains as well. ENERGY STAR boasts a growing group of corporations that have used ENERGY STAR to influence key suppliers to effectively manage energy.

DOE is also working with Superior Energy Performance (SEP), a voluntary certification program helping to provide industrial facilities with a roadmap for achieving continual improvement in energy efficiency while maintaining competitiveness. A central element of SEP is implementation of the International Organization for Standardization (ISO) 50001 energy management standard, with additional requirements to achieve and document energy intensity improvements. DOE is working through SEP to bring ISO 50001 to the U.S. Upon its publication this American National Standards Institute-accredited program is anticipated to provide companies with a framework for fostering energy efficiency at the plant level and a consistent methodology for measuring and validating energy efficiency and intensity improvements. This new framework has the opportunity to be an important tool to integrate into supply chain efforts.

ALTERNATIVE FUEL VEHICLES

Few technologies hold greater promise for reducing our dependence on oil than alternative fuel vehicles. The Administration has set a goal to have the United States become the first country with a million electric vehicles on the road. Meeting this goal will help the United States become a leader in the clean energy economy, while capitalizing on the ingenuity of American industry. Manufacturing products needed for the clean energy economy will generate long term economic strength in the U.S., creating jobs across the country while reducing air pollution and greenhouse gas emissions. The Administration supports the goal of utilizing alternative fuel technologies to break our dependence on oil and to move toward a clean energy future. The DOE looks forward to working with Congress to achieve these objectives.

DOE's Vehicle Technologies Program is helping the Nation lead the way in alternative fuel vehicle innovation.

DOE has helped reduce the cost of PHEV Lithium Ion batteries to $650 per kilowatt-hour, a 35% reduction from the 2008 baseline of $1,000 per kilowatt-hour. This is making oil alternatives competitive in general while specifically increasing U.S. competitiveness in the global market.

CONCLUSION

In conclusion, the Department of Energy thanks the Subcommittee for the opportunity to comment on these proposed initiatives. We look forward to working with Congress to develop strong, effective clean energy policy to ensure U.S. leadership on these global issues and in the clean energy economy. I am happy to answer any questions Committee Members may have.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill S. 1000, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

TABLE OF LAWS AFFECTED

Energy Conservation and Production Act
Energy Policy Act of 2005
Energy Policy and Conservation Act
Energy Independence and Security Act of 2007
Title 404—Public Buildings, Property, and Works
National Energy Conservation Policy Act

ENERGY CONSERVATION AND PRODUCTION ACT

Public Law 94–385, as Amended

AN ACT To amend the Federal Energy Administration Act of 1974 to extend the duration of authorities under such Act; to provide an incentive for domestic production; to provide for electric utility rate design initiatives; to provide for energy conservation standards for new buildings; to provide for energy conservation assistance for existing buildings and industrial plants; and for other purposes.

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TITLE III—ENERGY CONSERVATION STANDARDS FOR NEW BUILDINGS

DEFINITIONS

SEC. 303. As used in this title:

(1) The term "Administrator" means the Administrator of the Federal Energy Administration; except that after such Administration ceases to exist, such term means any officer of the United States designated by the President for purposes of this title.

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(16) The term "ASHRAE" means the American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

(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).

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

[(a) CONSIDERATION AND DETERMINATION RESPECTING RESIDENTIAL BUILDING ENERGY CODES.—(1) Not later than 2 years after the date of the enactment o the Energy Policy Act of 1992, each State shall certify to the Secretary that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise such residential building code provisions to meet or exceed CABO Model Energy Code, 1992.

[(2) The determination referred to in paragraph (1) shall be—

[(A) made after public notice and hearing;

[(B) in writing;

[(C) based upon findings included in such determination and upon the evidence presented at the hearing; and

[(D) available to the public.

[(3) Each State may, to the extent consistent with otherwise applicable State law, revise the provisions of its residential building code regarding energy efficiency to meet or exceed CABO Model Energy Code, 1992, or may decline to make such revisions.

[(4) If a State makes a determination under paragraph (1) that it is not appropriate for such State to revise its residential building code, such State shall submit to the Secretary, in writing, the reasons for such determination, and such statement shall be available to the public.

[(5)(A) Whenever CABO Model Energy Code, 1992, (or any successor of such code) is revised, the Secretary shall, not later than 12 months after such revision, determine whether such revision would improve energy efficiency in residential buildings. The Secretary shall publish notice of such determination in the Federal Register.

[(B) If the Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise such residential building code provisions to meet or exceed the revised code for which the Secretary made such determination.

[(C) Paragraphs (2), (3), and (4) shall apply to any determination made under subparagraph (B).

[(b) CERTIFICATION OF COMMERCIAL BUILDING ENERGY CODE UPDATES.—(1) Not later 2 years after the date of the enactment of the Energy Policy Act of 1992, each State shall certify to the Secretary that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the requirements of ASHRAE Standard 90.1–1989.

[(2)(A) Whenever the provisions of ASHRAE Standard 90.1–1989 (or any successor standard) regarding energy efficiency in commercial buildings are revised, the Secretary shall, not later than 12 months after the date of such revision, determine whether such revision will improve energy efficiency in commercial buildings. The Secretary shall publish a notice of such determination in the Federal Register.

[(B)(i) If the Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency in accordance with the revised standard for which such determination was made. Such certification shall include a demonstration that the provisions of such State's commercial building code regarding energy efficiency meet or exceed such revised standard.

[(ii) If the Secretary makes a determination under subparagraph (A) that such revised standard will not improve energy efficiency in commercial buildings, State commercial building code provisions regarding energy efficiency shall meet or exceed ASHRAE Standard 90.1–1989, or if such standard has been revised, the last revised standard for which the Secretary has made an affirmative determination under subparagraph (A).

[(c) EXTENSIONS.—The Secretary shall permit extensions of the deadlines for the certification requirements under subsections (a) and (b) if a State can demonstrate that it has made a good faith effort to comply with such requirements and that it has made significant progress in doing so.

[(d) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes or to otherwise promote the design and construction of energy efficient buildings.

[(e) AVAILABILITY OF INCENTIVE FUNDING.—(1) The Secretary shall provide incentive funding to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes, including increasing and verifying compliance with such codes. In determining whether, and in what amount, to provide incentive funding under this subsection, the Secretary shall consider the actions proposed by the State to implement the requirements of this section, to improve and implement residential and commercial building energy efficiency codes, and to promote building energy efficiency through the use of such codes.

[(2) Additional funding shall be provided under this subsection for implementation of a plan to achieve and document at least a 90 percent rate of compliance with residential and commercial building energy efficiency codes, based on energy performance—

[(A) to a State that has adopted and is implementing, on a statewide basis—

[(i) a residential building energy efficiency code that meets or exceeds the requirements of the 2004 International Energy Conservation Code, or any succeeding version of that code that has received an affirmative deter-

mination from the Secretary under subsection (a)(5)(A); and

[(ii) a commercial building energy efficiency code that meets or exceeds the requirements of the ASHRAE Standard 90.1–2004, or any succeeding version of that standard that has received an affirmative determination from the Secretary under subsection (b)(2)(A); or

[(B) in a State in which there is no statewide energy code either for residential buildings or for commercial buildings, to a local government that has adopted and is implementing residential and commercial building energy efficiency codes, as described in subparagraph (A).

[(3) Of the amounts made available under this subsection, the Secretary may use $500,000 for each fiscal year to train State and local officials to implement codes described in paragraph (2).

[(4)(A) There are authorized to be appropriated to carry out this subsection—

[(i) $25,000,000 for each of fiscal years 2006 through 2010; and

[(ii) such sums as are necessary for fiscal year 2011 and each fiscal year thereafter.

[(B) Funding provided to States under paragraph (2) for each fiscal year shall not exceed one-half of the excess of funding under this subsection over $5,000,000 for the fiscal year.]

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 energy 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 Independence 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 onsite 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 CODESETTING 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 a 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 ineligible 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 ADVANCE 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.

(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $200,000,000, to remain available until expended.

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[SEC. 307. SUPPORT FOR VOLUNTARY BUILDING ENERGY CODES.

[(a) IN GENERAL.—Not later than 1 year after the date of the enactment of the Energy Policy Act of 1992, the Secretary, after consulting with the Secretary of Housing and Urban Development, the Secretary of Veterans Affairs, other appropriate Federal agencies, CABO, ASHRAE, the National Conference of States on Building Codes and Standards, and another appropriate building codes and standards organization, shall support the upgrading of voluntary building energy codes for new residential and commercial buildings. Such support shall include—

[(1) a compilation of data and other information regarding building energy efficiency standards and codes in the possession of the Federal Government, State and local governments, and industry organizations:

[(2) assistance in improving the technical basis for such standards and codes;

[(3) assistance in determining the cost-effectiveness and the technical feasibility of the energy efficiency measures included in such standards and codes; and

[(4) assistance in identifying appropriate measures with regard to radon and other indoor air pollutants.

[(b) REVIEW.—The Secretary shall periodically review the technical and economic basis of voluntary building energy codes and, based upon ongoing research activities—

[(1) recommend amendments to such codes including measures with regard to radon and other indoor air pollutants;

[(2) seek adoption of all technologically feasible and economically justified energy efficiency measures; and

[(3) otherwise participate in any industry process for review and modification of codes.]

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ENERGY POLICY ACT OF 2005

AN ACT To ensure jobs for our future with secure, affordable, and reliable energy.

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TITLE II—RENEWABLE ENERGY

Subtitle A—General Provision

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SEC. 203. FEDERAL PURCHASE REQUIREMENT.

(a) REQUIREMENT.—The President, acting through the Secretary, shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of [electric energy] *electric and thermal energy* the Federal Government consumes during any fiscal year, the following amounts shall be renewable energy:

(1) Not less than 3 percent in fiscal years 2007 through 2009.
(2) Not less than 5 percent in fiscal years 2010 through 2012.
(3) Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter.

(b) DEFINITIONS.—In this section:

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(2) RENEWABLE ENERGY.—The term "renewable energy" means [electric energy] *electric and thermal energy* generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydreoelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

* * * * * * *

(c) CALCULATION.—For purposes of determining compliance with the requirement of this section, the amount of renewable energy shall be doubled if—

(1) the renewable energy is produced and used on-site at a Federal facility;

(2) the renewable energy is produced on Federal lands and used at a Federal facility; or

(3) the renewable energy is produced on Indian land as defined in title XXVI or the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.) and used at a Federal facility.

(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).

[(d)] *(e)* REPORT.—Not later than April 15, 2007, and every 2 years thereafter, the Secretary shall provide a report to Congress on the progress of the Federal Government in meeting the goals established by this section.

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TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES

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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 tip 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 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, 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 170(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.

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ENERGY POLICY AND CONSERVATION ACT

Public Law 94–163, as amended

AN ACT TO increase domestic energy supplies and availability; to restrain energy demand; to prepare for energy emergencies; and for other purposes.

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TITLE III—IMPROVING ENERGY EFFICIENCY

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PART B—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS OTHER THAN AUTOMOBILES

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SEC. 324A. ENERGY STAR PROGRAM.

(a) IN GENERAL.—There is established within the Department of Energy and the Environmental Protection Agency a voluntary program to identify and promote energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through voluntary labeling of, or other forms of communication about, products and buildings that meet the highest energy conservation standards.

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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 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 $10,000,000 for the period of fiscal years 2012 through 2021.

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PART E—INDUSTRIAL ENERGY EFFICIENCY

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SEC. 373. WASTE ENERGY RECOVERY INCENTIVE GRANT PROGRAM.

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(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary—

(1) to make grants to projects and utilities under subsection (b)—

[(A) $100,000,000 for fiscal year 2008 and $200,000,000 for each of fiscal years 2009 through 2012; and]

(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

[(B)] *(D)* such additional amounts for fiscal year 2008 and each fiscal year thereafter as may be necessary for administration of the waste energy recovery incentive grant program; and

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SEC. 375. ENERGY APPLICATION CENTERS.

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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 crosscutting 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, in-

cluding 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 $10,000,00 for the period of fiscal years 2012 through 2021.

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SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY GRANTS AND LOANS FOR INSTITUTIONS *AND INDUSTRY*.

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(g) LOANS FOR ENERGY EFFICIENCY IMPROVEMENT AND ENERGY SUSTAINABILITY.—

(1) IN GENERAL.—Subject to the availability of appropriated funds, the Secretary shall provide loans to institutional entities for the purpose of implementing energy efficiency improvements and sustainable energy infrastructure.

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(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 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.

[(h)] *(i)* PROGRAM PROCEDURES.—Not later than 180 days after the date of enactment of this section, the Secretary shall establish procedures for the solicitation and evaluation of potential projects for grant and loan funding and administration of the grant and loan programs.

[(i)] *(j)* AUTHORIZATION.—

(1) GRANTS.—There is authorized to be appropriated for the cost of grants authorized in subsections (b), (c), and (d) $250,000,000 for each of fiscal years 2009 [through 2013] *and 2010, $100,000,000 for each of fiscal years 2011 and 2012, and $250,000,000 for fiscal year 2013*, of which not more than 5 percent may be used for administrative expenses.

(2) LOANS.—There is authorized to be appropriated for the initial cost of direct loans authorized in subsection (g) $500,000,000 for each of fiscal years 2009 [through 2013], *and 2010, $100,000,000 for each of fiscal years 2011 and 2012, and $425,000,000 for fiscal year 2013* of which not more than 5 percent may be used for administrative expenses.

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ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

Public Law 110–140

AN ACT To move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes.

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TITLE IV—ENERGY SAVINGS IN BUILDING AND INDUSTRY

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Subtitle B—High-Performance Commercial Buildings

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SEC. 422. ZERO NET ENERGY COMMERCIAL BUILDINGS INITIATIVE.

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(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriate to carry out this section—

(1) $20,000,000 for fiscal year 2008;

[(2) $50,000,000 for each of fiscal years 2009 and 2010;
[(3) $100,000,000 for each of fiscal years 2011 and 2012; and
[(4) $200,000,000 for each of fiscal years 2013 through 2018.]
(2) $50,000,000 for each of fiscal years 2009 through 2012;
(3) $100,000,000 for fiscal 2013; and
(4) $200,000,000 for each of fiscal years 2014 through 2018.

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Subtitle D—Industrial Energy Efficiency

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SEC. 452. [ENERGY-INTENSIVE INDUSTRIES PROGRAM.] *FUTURE OF INDUSTRY PROGRAM.*

(a) DEFINITIONS.—In this section:

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[(3)] *(4)* FEEDSTOCK.—The term "feedstock" means the raw material supplied for use in manufacturing, chemical, and biological processes.

[(4)] *(5)* PARTNERSHIP.—The term "partnership" means an energy efficiency partnership established under subsection (c)(1)(A).

(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.

[(5)] *(6)* PROGRAM.—The term "program" means the energy-intensive industries program established under subsection (b).

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(c) PARTNERSHIPS.—

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(2) ELIGIBLE ACTIVITIES.—Partnership activities eligible for funding under this subsection include—

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(E) the incorporation of technologies and innovations that would significantly improve the energy efficiency and utilization of energy-intensive commercial applications; [and]

(F) research to establish (through the Industrial Technologies Program and in collaboration with energy-intensive industries) a roadmap 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-, and 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

[(F)] *(G)* any other activities that the Secretary determines to be appropriate.

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(e) INSTITUTION OF HIGHER EDUCATION-BASED INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—[The Secretary]

(1) IN GENERAL.—The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers, whose purpose shall be—

[(1)] *(A)* to identify opportunities for optimizing energy efficiency and environmental performance *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 purpose;*

[(2)] *(B)* to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers;

[(3)] *(C)* to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;

[(4)] *(D)* to coordinate with appropriate Federal and State research offices, and provide a clearinghouse for industrial process and energy efficiency technical assistance resources; and

[(5)] *(E)* to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.

(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 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 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).

(f) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary to carry out this section—

(A) $184,000,000 for fiscal year 2008;

(B) $190,000,000 for fiscal year 2009;
(C) $196,000,000 for fiscal year 2010;
(D) [$202,000,000] *$102,000,000* for fiscal year 2011;
(E) [$208,000,000] *$108,000,000* for fiscal year 2012; and
(F) such sums as are necessary for fiscal year 2013 and each fiscal year thereafter.

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TITLE 40—PUBLIC BUILDINGS, PROPERTY, AND WORKS

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Subtitle II—Public Buildings And Works

PART A—GENERAL

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CHAPTER 33—ACQUISITION, CONSTRUCTION, AND ALTERATION

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SEC. 3307. CONGRESSIONAL APPROVAL OF PROPOSED PROJECTS.

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(c) INCREASE OF ESTIMATED MAXIMUM COST.—The estimated maximum cost of any project approved under this section as set forth in any prospectus may be increased by an amount equal to any percentage increase, as determined by the Administrator, in construction or alteration costs from the date the prospectus is transmitted to Congress. The increase authorized by this subsection may not exceed 10 percent of the estimated maximum cost.

(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).

[(d)] *(e)* RESCISSION OF APPROVAL.—If an appropriation is not made within one year after the date a project for construction, alteration, or acquisition is approved under subsection (a), the Committee on Environment and Public Works of the Senate or the Committee on Transportation and Infrastructure of the House of

Representatives by resolution may rescind its approval before an appropriation is made.

[(e)] *(f)* EMERGENCY LEASES BY THE ADMINISTRATOR.—This section does not prevent the Administrator from entering into emergency leases during any period declared by the President to require emergency leasing authority. An emergency lease may not be for more than 180 days without approval of a prospectus for the lease in accordance with subsection (a).

[(f)] *(g)* MINIMUM PERFORMANCE REQUIREMENTS FOR LEASED SPACE.— With respect to space to be leased the Administrator shall include, to the maximum extent practicable, minimum performance requirements requiring energy efficiency and the use of renewable energy.

[(g)] *(h)* LIMITATION ON LEASING CERTAIN SPACE.—

(1) IN GENERAL.—The Administrator may not lease space to accommodate any of the following if the average rental cost of leasing the space will exceed $1,500,000:

(A) Computer and telecommunications operations.

(B) Secure or sensitive activities related to the national defense or security, except when it would be inappropriate to locate those activities in a public building or other facility identified with the Government.

(C) A permanent courtroom, judicial chamber, or administrative office for any United States court.

(2) EXCEPTION.—The Administrator may lease space with respect to which paragraph (1) applies if the Administrator—

(A) decides, for reasons set forth in writing, that leasing the space is necessary to meet requirements which cannot be met in public buildings; and

(B) submits the reasons to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

[(h)] *(i)* DOLLAR AMOUNT ADJUSTMENT.—The Administrator annually may adjust any dollar amount referred to in this section to reflect a percentage increase or decrease in construction costs during the prior calendar year, as determined by the composite index of construction costs of the Department of Commerce. Any adjustment shall be expeditiously reported to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

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NATIONAL ENERGY CONSERVATION POLICY ACT

Public Law 95–619

AN ACT For the relief of Jack R. Misner.

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TITLE V—FEDERAL ENERGY INITIATIVES

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PART B—FEDERAL ENERGY MANAGEMENT 1–1

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SEC. 543. ENERGY MANAGEMENT REQUIREMENTS.

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(e) METERING OF ENERGY USE.—

(1) DEADLINE.—By October 1, 2012, in accordance with guidelines established by the Secretary under paragraph (2), all Federal buildings shall, for the purposes of efficient use of energy and reduction in the cost of electricity used in such buildings, be metered. Each agency shall use, to the maximum extent practicable, advanced meters or advanced metering devices that provide data at least daily and that measure at least hourly consumption of electricity in the Federal buildings of the agency. Not later than October 1, 2016, each agency shall provide for equivalent metering of natural gas and steam, in accordance with guidelines established by the Secretary under paragraph (2). Such data shall be incorporated into existing Federal energy tracking systems and made available to Federal facility managers.

* * * * * * *

[(3) PLAN.—Not later than 6 months after the date 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 how the agency will implement the requirements of paragraph (1), including (A) how the agency will designate personnel primarily responsible for achieving the requirements and (B) demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices, as defined in paragraph (1), are not practicable.]

(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 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 en-

ergy 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.

(f) USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.—

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(7) WEB-BASED CERTIFICATION.—

[(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) 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).**]**

(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.

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[(f)**]** *(g)* LARGE CAPITAL ENERGY INVESTMENTS.—

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TITLE VII—ENERGY SAVINGS PERFORMANCE CONTRACTS

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SEC. 804. DEFINITIONS.

For purposes of this title, the following definitions apply:

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(4) The term "energy or water conservation measure" means—

(A) an energy conservation measure, as defined in section 551; **[**or**]**

(B) a water conservation measure that improves the efficiency of water use, is life-cycle cost-effective, and involves water conservation, water recycling or reuse, more efficient treatment of wastewater or stormwater, improvements in operation or maintenance efficiencies, retrofit activities, or other related activities, not at a Federal hydroelectric facility**[**.**]***; or*

(C) a measure to support the use of electric vehicles or the fueling or charging infrastructure necessary for electric vehicles.

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