[COMMITTEE PRINT #1]

(SHOWING TEXT OF THE COMMITTEE PRINT AS APPROVED BY THE SUBCOMMITTEE ON ENERGY AND AIR QUALITY ON JUNE 20, 2007)

110TH CONGRESS
1ST SESSION

H. R. _____

To promote greater energy efficiency.

IN THE HOUSE OF REPRESENTATIVES

M__. _____ introduced the following bill; which was referred to the Committee on _____

A BILL

To promote greater energy efficiency.

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

SECTION 1. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

TITLE I—PROMOTING ENERGY EFFICIENCY

Subtitle A—Appliance Efficiency

SEC. 101. ENERGY STANDARDS FOR HOME APPLIANCES.

(a) APPLIANCES.—The Energy Policy and Conservation Act is amended as follows:

(1) DEHUMIDIFIERS.—Section 325(cc)(2) (42 U.S.C. 6295(cc)(2)) is amended to read as follows:

''(2) Dehumidifiers manufactured on or after October 1, 2012, shall have an Energy Factor that meets or exceeds the following values:

''Product Capacity (pints/day):	**Minimum Energy Factor (liters/KWh)**
Up to 35.00	1.35
35.01-45.00	1.50
45.01-54.00	1.60
54.01-75.00	1.70
Greater than 75.00	2.5''.

(2) RESIDENTIAL CLOTHESWASHERS AND RESIDENTIAL DISHWASHERS.—Section 325(g) (42 U.S.C. 6295(g)) is amended by adding at the end the following new paragraphs:

''(9) Clotheswashers manufactured on or after January 1, 2011, shall have—

''(A) a Modified Energy Factor of at least 1.26; and

''(B) a water factor of not more than 9.5.

''(10) No later than December 31, 2011, the Secretary shall publish a final rule determining whether to amend the standards in effect for clotheswashers manufactured on or after January 1, 2015. Such rule shall contain such amendment, if any.

''(11) Dishwashers manufactured on or after January 1, 2010, shall—

''(A) for standard size dishwashers not exceed 355 kwh/year and 6.5 gallon per cycle; and

''(B) for compact size dishwashers not exceed 260 kwh/year and 4.5 gallons per cycle.

''(12) No later than January 1, 2015, the Secretary shall publish a final rule determining whether to amend the standards for dishwashers manufactured on or after January 1, 2018. Such rule shall contain such amendment, if any.''.

(3) ENERGY CONSERVATION STANDARD.—Section 321(6)(A) (42 U.S.C. 6291(6)(A)) is amended by striking ''or, in the case of'' and inserting ''and, in the case of residential clotheswashers, residential dishwashers,''.

(4) REFRIGERATORS AND FREEZERS.—Section 325(b) (42 U.S.C. 6295(b)) is amended by adding at the end the following new paragraph:

''(4) Not later than December 31, 2010, the Secretary shall publish a final rule determining whether to amend the standards in effect for refrigerators, refrigerator-freezers, and freezers manufactured on or after January 1, 2014. Such rule shall contain such amendment, if any.''.

(b) ENERGY STAR.—Section 324A(d)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294a(d)(2)) is amended by striking ''January 1, 2010'' and inserting ''July 1, 2009''.

SEC. 102. ELECTRIC MOTOR EFFICIENCY STANDARDS.

(a) DEFINITIONS.—Section 340(13) of the Energy Policy and Conservation Act (42 U.S.C. 6311(13)) is amended—

(1) by redesignating subparagraphs (B) through (H) as subparagraphs (C) through (I), respectively; and

(2) by striking the text of subparagraph (A) and inserting the following: ''The term 'general purpose electric motor (subtype I)' means any motor that meets the definition of 'General Purpose' as established in the final rule issued by the Department

of Energy for 'Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors' (10 CFR 431), as in effect on the date of enactment of the [short title].

''(B) The term 'general purpose electric motor (subtype II)' means motors incorporating the design elements of a general purpose electric motor (subtype I) that are configured as one of the following:

''(i) U-Frame Motors.

''(ii) Design C Motors.

''(iii) Close-coupled pump motors.

''(iv) Footless motors.

''(v) Vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

''(vi) 8-pole motors (~900 rpm).

''(vii) All poly-phase motors with voltages up to 600 volts other than 230/460 volts.''.

(b) STANDARDS.—Section 342(b) of the Energy Policy and Conservation Act (42 U.S.C. 6313(b)) is amended by striking the text of paragraph (1) and inserting the following: ''(A) Each general purpose electric motor (subtype I), except as provided in subparagraph (B), with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a compo-

nent of another piece of equipment) after the 36-month period beginning on the date of enactment of the [short title], shall have a nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-12.

''(B) Each fire pump motor manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the [short title], shall have nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-11.

''(C) Each general purpose electric motor (subtype II) with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the [short title], shall have a nominal full load efficiency not less than as defined in NEMA MG-1 (2006) Table 12-11.

''(D) Each NEMA Design B, general purpose electric motor with a power rating of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the [short title], shall have a nominal full load

efficiency not less than as defined in NEMA MG-1 (2006) Table 12-11.''.

SEC. 103. RESIDENTIAL BOILERS.

Section 325(f) of the Energy Policy and Conservation Act (42 U.S.C. 6925(f)) is amended—

(1) in the subsection heading, by inserting ''AND BOILERS'' after ''FURNACES'';

(2) in paragraph (1), by striking ''except that'' and all that follows through ''(B)'' and inserting ''except that'';

(3) by redesignating paragraph (3) as paragraph (4); and

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

''(3) BOILERS.—

''(A) IN GENERAL.—Subject to subparagraph (B), boilers manufactured on or after September 1, 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature
Gas Steam	80%	No Constant Burning Pilot

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Oil Hot Water	84%	Automatic Means for Adjusting Temperature
Oil Steam	82%	None
Electric Hot Water	None	Automatic Means for Adjusting Temperature
Electric Steam	None	None

''(B) AUTOMATIC MEANS FOR ADJUSTING WATER TEMPERATURE.—

''(i) IN GENERAL.—The manufacturer shall equip each gas, oil and electric hot water boiler, except boilers equipped with tankless domestic water heating coils, with automatic means for adjusting the temperature of the water supplied by the boiler to ensure that an incremental change in inferred heat load produces a corresponding incremental change in the temperature of water supplied.

''(ii) SINGLE INPUT RATE.—For a boiler that fires at one input rate this requirement may be satisfied by providing an automatic means that allows the burner or heating element to fire only when such means has determined that the inferred heat load cannot be met by the residual heat of the water in the system.

''(iii) NO INFERRED HEAT LOAD.—When there is no inferred heat load with respect to a hot water boiler, the automatic means described in clause (i) and (ii) shall limit the temperature of the water in the boiler to not more than 140 degrees Fahrenheit.

''(iv) OPERATION.—A boiler described in clause (i) or (ii) shall be operable only when the automatic means described in clauses (i), (ii) and (iii) is installed.''.

SEC. 104. REGIONAL VARIATIONS IN HEATING OR COOLING STANDARDS.

(a) CONSUMER APPLIANCES.—Section 325(o) of the Energy Policy and Conservation Act (42 U.S.C. 6925(o)) is amended by adding at the end the following new paragraph:

''(6)(A) The Secretary may establish regional standards for space heating and air conditioning products, other than window-unit air-conditioners and portable space heaters. For each space heating and air conditioning product, the Secretary may establish a national minimum standard and two more stringent regional standards for regions determined to have significantly differing climatic conditions. Any standards set for any such region shall achieve the maximum level of energy savings that are tech-

nically feasible and economically justified within that region. As a preliminary step to determining the economic justifiability of establishing any such regional standard, the Secretary shall conduct a study involving stakeholders, including but not limited to a representative from the National Institute of Standards and Technology; representatives of nongovernmental advocacy organizations; representatives of product manufacturers, distributors, and installers; representatives of the gas and electric utility industries; and such other individuals as the Secretary may designate. Such study shall determine the potential benefits and consequences of prescribing regional standards for heating and cooling products, and may, if favorable to such standards, constitute the evidence of economic justifiability required under this Act. Regional boundaries shall follow State borders and only include contiguous States (except Alaska and Hawaii), except that on the request of a State, the Secretary may divide that State to include a part of that State in each of two regions.

''(B) If the Secretary establishes regional standards, it shall be unlawful under section 332 to offer for sale at retail, sell at retail, or install noncomplying products except within the specified regions.

''(C)(i) Except as provided in clause (ii), no product manufactured to a regional standard established pursuant

to subparagraph (A) shall be distributed in commerce without a prominent label affixed to the product which includes at the top of the label, in print of not less than 14-point type, the following: 'It is a violation of Federal law for this product to be installed in any State outside the region shaded on the map printed on this label.'. Below this notice shall appear a map of the United States with clearly defined State boundaries and names, and with all States in which the product meets or exceeds the standard established pursuant to subparagraph (A) shaded in a color or a manner as to be easily visible without obscuring the State boundaries and names. Below the map shall be printed on each label the following: 'It is a violation of Federal law for this label to be removed, except by the owner and legal resident of any single-family home in which this product is installed.'.

''(ii) A product manufactured that meets or exceeds all regional standards established under this paragraph shall bear a prominent label affixed to the product which includes at the top of the label, in print of not less than 14-point type the following: 'This product has achieved an energy efficiency rating under Federal law allowing its installation in any State.'.

''(D) Manufacturers of space heating and air conditioning equipment subject to regional standards estab-

lished under this paragraph shall obtain and retain records on the intended installation locations of the equipment sold, and shall make such records available to the Secretary on request.''.

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

''(10)(A) The Secretary may establish regional standards for space heating and air conditioning products subject to this subsection. For each space heating and air conditioning product, the Secretary may establish a national minimum standard and two more stringent regional standards for regions determined to have significantly differing climatic conditions. Any standards set for any such region shall achieve the maximum level of energy savings that are technically feasible and economically justified within that region. Regional boundaries shall follow State borders and only include contiguous States (except Alaska and Hawaii), except that on the request of a State, the Secretary may divide that State to include a part of that State in each of two regions.

''(B) If the Secretary establishes regional standards, it shall be unlawful under section 345 to offer for sale

at retail, sell at retail, or install noncomplying products except within the specified regions.

''(C) Manufacturers of space heating and air conditioning equipment subject to regional standards established under this paragraph shall obtain and retain records on the intended installation locations of the equipment sold, and shall make such records available to the Secretary on request.''.

SEC. 105. PROCEDURE FOR PRESCRIBING NEW OR AMENDED STANDARDS.

Section 325(p) of the Energy Policy and Conservation Act (42 U.S.C. 6925(p)) is amended—

(1) by striking paragraph (1); and

(2) by redesignating paragraphs (2) through (4) as paragraphs (1) through (3), respectively.

SEC. 106. EXPEDITING APPLIANCE STANDARDS RULEMAKINGS.

(a) DIRECT FINAL RULE.—Section 325(p) of the Energy Policy and Conservation Act (42 U.S.C. 6295(p)) is amended by adding a new paragraph (5) as follows:

''(5) If manufacturers of any type (or class) of covered products or covered equipment, States, and efficiency advocates, or persons determined by the Secretary to fully represent such parties, submit to the Secretary a joint recommendation of an energy

or water conservation standard and the Secretary determines that the recommended standard complies with subsection (o) or section 342(a)(6)(B), as applicable, to that type (or class) of covered products or covered equipment to which the standard would apply, the Secretary may then issue a direct final rule including the standard recommended. If the Secretary determines that a direct final rule cannot be issued based on such a submitted joint recommendation, the Secretary shall publish a determination with an explanation as to why the joint recommendation does not comply with this paragraph. For purposes of this paragraph, the term 'direct final rule' means a final rule published the same day with a parallel notice of proposed rulemaking that proposes a new or amended energy or water conservation standard that is identical to the standard set forth in the final rule. There shall be a 110-day period for public comment with respect to the direct final rule. Not later than 10 days after the expiration of such 110-day period, the Secretary shall publish a notice responding to comments received with respect to the direct final rule. The Secretary shall withdraw a direct final rule promulgated pursuant to this paragraph within 120 days after publi-

cation in the Federal Register if the Secretary receives, with respect to the direct final rule, one or more adverse public comments or any alternate joint recommendation and, based on the rulemaking record, the Secretary determines that such adverse comments or alternate joint recommendation may provide a reasonable basis for withdrawing the direct final rule under subsection (o), section 342(a)(6)(B), or any applicable law. In such a case, the Secretary shall then proceed with the parallel notice of proposed rulemaking, and shall identify in a notice published in the Federal Register the reasons for the withdrawal of the direct final rule. A direct final rule that is withdrawn in accordance with this paragraph shall not be considered final for purposes of subsection (o)(1) of this section. No person shall be found in violation of this part for noncompliance with a direct final rule that is withdrawn under this paragraph, if that person has complied with the applicable standard in effect under this part immediately prior to issuance of that direct final rule.''.

(b) CONFORMING AMENDMENT.— Section 345(b)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6316(b)(1)) is amended by inserting after ''section'' the first time it appears ''325(p)(5), section''.

SEC. 107. CORRECTION OF LARGE AIR CONDITIONER RULE ISSUANCE CONSTRAINT.

(a) DEFINITIONS.—Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended by adding the following new paragraphs at the end:

''(22) The term 'single package vertical air conditioner' means air-cooled commercial package air conditioning and heating equipment; factory assembled as a single package having its major components arranged vertically, which is an encased combination of cooling and optional heating components, is intended for exterior mounting on, adjacent interior to, or through an outside wall; and is powered by a single- or three-phase current. It may contain separate indoor grille(s), outdoor louvers, various ventilation options, indoor free air discharge, duct-work, well plenum, or sleeve. Heating components may include electrical resistance, steam, hot water, or gas, but may not include reverse cycle refrigeration as a heating means.

''(23) The term 'single package vertical heat pump' means a single package vertical air conditioner that utilizes reverse cycle refrigeration as its primary heat source, that may include secondary supplemental heating by means of electrical resistance, steam, hot water, or gas.''.

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

(1) in each of paragraphs (1) and (2), by inserting after ''heating equipment'' in the first sentence '', including single package vertical air conditioners and single package vertical heat pumps,'';

(2) in paragraph (1), by striking ''but before January 1, 2010,'';

(3) in paragraph (6)(A)(i), by striking ''January 1, 2010,'' and inserting ''October 24, 1992'';

(4) in paragraph (6)(A)(ii)—

(A) by striking ''5'' and inserting ''2''; and

(B) by striking ''the effective date of a standard'' and inserting ''January 10, 2010, or beginning on the effective date of the most recent revision made under clause (i) of this subparagraph,'' ; and

(C) by adding the following new clause at the end:

''(iii) The Secretary may only initiate a rulemaking under clause (ii) of this subparagraph for a particular product so long as any standard established under a previous rulemaking with respect to that product has become effective.'';

(5) in each of paragraphs (7), (8), and (9), by inserting after ''heating equipment'' in the first sentence '', excluding single package vertical air conditioners and single package vertical heat pumps,'';

(6) in paragraph (7)—

(A) by striking ''manufactured on or after January 1, 2010'';

(B) in each of subparagraphs (A), (B), and (C) , by adding at the beginning ''For equipment manufactured on or after January 1, 2010,''; and

(C) by adding at the end the following new subparagraphs:

''(D) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, the minimum seasonal energy efficiency ratio of air-cooled three-phase electric central air conditioners and central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), split systems, shall be 13.0.

''(E) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, minimum seasonal energy efficiency ratio of air-cooled three-phase electric central air conditioners and central air condi-

tioning heat pumps less than 65,000 Btu per hour (cooling capacity), single package, shall be 13.0.

''(F) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, minimum heating seasonal performance factor of air-cooled three-phase electric central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), split systems, shall be 7.7.

''(G) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, the minimum heating seasonal performance factor of air-cooled three-phase electric central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), single package, shall be 7.7.''; and

(7) by adding the following new paragraphs at the end:

''(10) Single package vertical air conditioners and single package vertical heat pumps manufactured on or after January 1, 2010, shall meet the following standards:

''(A) The minimum energy efficiency ratio of single package vertical air conditioners less than 65,000 Btu per hour (cooling capacity), single-phase, shall be 9.0.

''(B) The minimum energy efficiency ratio of single package vertical air conditioners less than 65,000 Btu per hour (cooling capacity), three-phase, shall be 9.0.

''(C) The minimum energy efficiency ratio of single package vertical air conditioners at or above 65,000 Btu per hour (cooling capacity) but less than 135,000 Btu per hour (cooling capacity), shall be 8.9.

''(D) The minimum energy efficiency ratio of single package vertical air conditioners at or above 135,000 Btu per hour (cooling capacity) but less than 240,000 Btu per hour (cooling capacity), shall be 8.6.

''(E) The minimum energy efficiency ratio of single package vertical heat pumps less than 65,000 Btu per hour (cooling capacity), single-phase, shall be 9.0; and the minimum coefficient of performance in the heating mode shall be 3.0.

''(F) The minimum energy efficiency ratio of single package vertical heat pumps less than 65,000 Btu per hour (cooling capacity), three-phase, shall be 9.0; and the minimum coefficient of performance in the heating mode shall be 3.0.

''(G) The minimum energy efficiency ratio of single package vertical heat pumps at or above 65,000 Btu per hour (cooling capacity) but less than 135,000 Btu per hour (cooling capacity), shall be 8.9; and the minimum coefficient of performance in the heating mode shall be 3.0.

''(H) The minimum energy efficiency ratio of single package vertical heat pumps at or above 135,000 Btu per hour (cooling capacity) but less than 240,000 Btu per hour (cooling capacity), shall be 8.6; and the minimum coefficient of performance in the heating mode shall be 2.9.

''(11) Not later than 36 months after the date of enactment of this paragraph, the Secretary shall review the most recently published ASHRAE/IES Standard 90.1 with respect to single package vertical air conditioners and single package vertical heat pumps according to the procedures established in paragraph (6).''.

SEC. 108. MULTIPLE STANDARDS.

(a) CONSUMER APPLIANCES.—Section 325(o)(5) of the Energy Policy and Conservation Act (42 U.S.C. 6925(o)(5)) is amended by inserting ''If a covered product includes 2 or more independent energy-using features, the Secretary may set more than 1 energy conservation stand-

ard for that covered product with respect to those features.'' after ''each major function.''.

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

''(f) MULTIPLE STANDARDS.—If covered equipment includes 2 or more independent energy-using features, the Secretary may set more than 1 energy conservation standard for that covered equipment with respect to those features.''.

SEC. 109. IMPROVING SCHEDULE FOR STANDARDS UPDATING AND CLARIFYING STATE AUTHORITY.

(a) CONSUMER APPLIANCES.—Section 325(m) of the Energy Policy and Conservation Act (42 U.S.C. 6295(m)) is amended to read as follows:

''(m) FURTHER RULEMAKING.—(1) Not later than 6 years after issuance of any final rule establishing or amending a standard, as required for a product under this part, the Secretary shall publish either—

''(A) a notice of the Secretary's determination that standards for that product do not need to be amended, based on the criteria in subsection (n)(2); or

''(B) a notice of proposed rulemaking including new proposed standards.

In either case, the Secretary shall also publish a notice stating that the Department's analysis is publicly available, and provide opportunity for written comment.

''(2) Not later than 2 years after a notice is issued under paragraph (1)(B), the Secretary shall publish a final rule amending the standard for the product. Not later than 3 years after a determination under paragraph (1)(A), the Secretary shall make a new determination and publication under paragraph (1)(A) or (B).

''(3) An amendment prescribed under this subsection shall apply to products manufactured after a date which is 3 years after publication of the final rule establishing a standard, except that a manufacturer shall not be required to apply new standards to a product with respect to which other new standards have been required within the prior 6 years.

''(4) If the Secretary does not publish a final determination for a product by the date required in paragraph (1) or a final standard for a product by the date required in paragraph (2), then, notwithstanding section 327, a State shall not be preempted from establishing standards for that product until—

''(A) the date on which an amended Federal standard takes effect; or

''(B) 3 years after notice of a determination not to amend the standard.''.

(b) INDUSTRIAL EQUIPMENT.—Section 342(a)(6) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)(6)) is amended—

(1) by redesignating subparagraph (C) as subparagraph (D); and

(2) by amending the remainder of the paragraph to read as follows:

''(6)(A) If ASHRAE/IES Standard 90.1 is amended with respect to any small, large, or very large commercial package air conditioning and heating equipment, packaged terminal air conditioners, packaged terminal heat pumps, warm-air furnaces, packaged boilers, storage water heaters, instantaneous water heaters, or unfired hot water storage tanks, the Secretary shall within 6 months publish in the Federal Register for public comment an analysis of the energy savings potential of the amended energy efficiency standards. The Secretary shall establish an amended uniform national standard for that product at the minimum level for each effective date specified in the amended ASHRAE/IES Stand-

ard 90.1 within 18 months of the ASHRAE amendment's publication, unless the Secretary determines, by rule published in the Federal Register, and supported by clear and convincing evidence, that adoption of a uniform national standard more stringent than such amended ASHRAE/IES Standard 90.1 for such product would result in significant additional conservation of energy and is technologically feasible and economically justified.

''(B) If the Secretary issues a rule containing such a determination, the rule shall establish such amended standard, and shall be issued within 30 months of the ASHRAE amendment's publication.

''(C)(i) Not later than 6 years after issuance of any final rule establishing or amending a standard, as required for a product under this part, the Secretary shall publish either—

''(I) a notice of the Secretary's determination that standards for that product do not need to be amended, based on the criteria in subparagraph (A); or

''(II) a notice of proposed rulemaking including new proposed standards.

In either case, the Secretary shall also publish a notice stating that the Department's analysis

is publicly available, and provide opportunity for written comment.

''(ii) Not later than 2 years after a notice is issued under clause (i)(II), the Secretary shall publish a final rule amending the standard for the product. Not later than 3 years after a determination under clause (i)(I), the Secretary shall make a new determination and publication under clause (i)(I) or (II).

''(iii) An amendment prescribed under this subparagraph shall apply to products manufactured after a date which is 3 years after publication of the final rule establishing a standard, except that a manufacturer shall not be required to apply new standards to a product with respect to which other new standards have been required within the prior 6 years.

''(iv) If the Secretary does not publish a final determination for a product by the date required in clause (i) or a final standard for a product by the date required in clause (ii), then, notwithstanding section 327 and section 345(b)(2)(A), a State shall not be preempted from establishing standards for that product until—

''(I) the date on which an amended Federal standard takes effect; or

''(II) 3 years after publication of a final rule under which a determination is made not to amend the standard.''.

SEC. 110. UPDATING APPLIANCE TEST PROCEDURES.

(a) CONSUMER APPLIANCES.—Section 323(b)(1)(A) of the Energy Policy and Conservation Act (42 U.S.C. 6923(b)(1)(A)) is amended by striking ''The Secretary may'' and all that follows through ''paragraph (3)'' and inserting ''At least every 7 years the Secretary shall review test procedures for all covered products and shall—

''(i) amend test procedures with respect to any covered product if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraph (3); or

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

(b) INDUSTRIAL EQUIPMENT.—Section 343(a)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6314(a)(1)) is amended by striking ''The Secretary may'' and all that follows through ''this section'' and inserting ''At least every 7 years the Secretary shall conduct an evaluation of each class of covered equipment and—

''(B) if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraphs (2) and (3), shall prescribe test procedures for such class in accordance with the provisions of this section; or

''(C) shall publish notice in the Federal Register of any determination not to amend a test procedure''.

SEC. 111. FURNACE FAN STANDARD PROCESS.

Section 325(f)(3)(D) of the Energy Policy and Conservation Act (42 U.S.C. 6295(f)(3)(D)) is amended—

(1) by striking ''may'' and inserting ''shall''; and

(2) by inserting ''not later than July 1, 2013'' after ''duct work''.

SEC. 112. TECHNICAL CORRECTIONS.

(a) Section 135(a)(1)(A)(ii) of the Energy Policy Act of 2005 (Public Law 109–58) is amended by striking ''C78.1–1978(R1984)'' and inserting ''C78.3–1978(R1984)''.

(b) Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) (as amended by section 135(c)(4) of the Energy Policy Act of 2005) is amended—

(1) in subsection (v)—

(A) in the subsection heading, by striking ''CEILING FANS AND'';

(B) by striking paragraph (1); and

(C) by redesignating paragraphs (2) through (4) as paragraphs (1) through (3), respectively; and

(2) in subsection (ff)—

(A) in paragraph (1)(A)—

(i) by striking clause (iii);

(ii) by redesignating clause (iv) as clause (iii); and

(iii) in clause (iii)(II) (as so redesignated), by inserting ''fans sold for'' before ''outdoor''; and

(B) in paragraph (4)(C)—

(i) in the matter preceding clause (i), by striking ''subparagraph (B)'' and inserting ''subparagraph (A)'';

(ii) by striking clause (ii) and inserting the following:

''(ii) shall be packaged with lamps to fill all sockets.'';

(C) in paragraph (6), by redesignating subparagraphs (C) and (D) as clauses (i) and (ii), respectively, of subparagraph (B); and

(D) in paragraph (7), by striking ''327'' the second place it appears and inserting ''324''.

SEC. 113. ENERGY EFFICIENT STANDBY POWER DEVICES.

(a) DEFINITIONS.—In this section:

(1) AGENCY.—

(A) IN GENERAL.—The term ''agency'' has the meaning given the term ''Executive agency'' in section 105 of title 5, United States Code.

(B) INCLUSIONS.—The term ''agency'' includes military departments, as the term is defined in section 102 of title 5, United States Code.

(2) ELIGIBLE PRODUCT.—The term ''eligible product'' means a commercially available, off-the-shelf product that—

(A)(i) uses external standby power devices; or

(ii) contains an internal standby power function; and

(B) is included on the list compiled under subsection (d).

(b) FEDERAL PURCHASING REQUIREMENT.—Subject to subsection (c), if an agency purchases an eligible product, the agency shall purchase—

(1) an eligible product that uses not more than 1 watt in the standby power consuming mode of the eligible product; or

(2) if an eligible product described in paragraph (1) is not available, the eligible product with the lowest available standby power wattage in the standby power consuming mode of the eligible product.

(c) LIMITATION.—The requirements of subsection (b) shall apply to a purchase by an agency only if—

(1) the lower-wattage eligible product is—

(A) lifecycle cost-effective; and

(B) practicable; and

(2) the utility and performance of the eligible product is not compromised by the lower wattage requirement.

(d) ELIGIBLE PRODUCTS.—The Secretary of Energy, in consultation with the Secretary of Defense and the Administrator of General Services, shall compile a list of cost-effective eligible products that shall be subject to the purchasing requirements of subsection (b).

Subtitle B—Lighting Efficiency

SEC. 121. EFFICIENT LIGHT BULBS.

(a) REGULATIONS.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall issue regulations—

(1) prohibiting the sale of light bulbs that emit less than 25 lumens per watt, effective January 1, 2010; and

(2) prohibiting the sale of light bulbs that emit less than 60 lumens per watt, effective January 1, 2015.

(b) EXEMPTIONS.—The regulations issued under subsection (a) shall include procedures for the Secretary to provide exemptions to the prohibition. The Secretary may provide such an exemption only in cases where the Secretary finds, after a hearing and opportunity for public comment, that it is not technically feasible to serve a specialized lighting application, such as a military, medical, public safety, or certified historic lighting application, using bulbs that meet the requirements of subsection (a). Exemptions provided under this subsection shall expire after 2 years. No exemption may be provided under this subsection for general illumination applications.

(c) CIVIL PENALTY.—The Secretary of Energy shall include in regulations under this section a schedule of appropriate civil penalties for violations of the prohibition under this section. Such penalties shall be in an amount sufficient to ensure compliance with this section.

(d) PLAN.—Not later than 6 months after the date of enactment of this Act, the Secretary of Energy shall

transmit to the Congress a plan for encouraging and providing incentives for the domestic production of more efficient light bulbs by United States manufacturers.

(e) DEFINITION.—For purposes of this section, the term ''general illumination'' means lighting designed to provide a substantially uniform level of luminance throughout an area exclusive of any provision for special or local requirements.

SEC. 122. INCANDESCENT REFLECTOR LAMPS.

(a) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended—

(1) in paragraph (30)(C)(ii)—

(A) in the matter preceding subclause (I)—

(i) by striking ''or similar bulb shapes (excluding ER or BR)'' and inserting ''ER, BR, BPAR, or similar bulb shapes''; and

(ii) by striking ''2.75'' and inserting ''2.25''; and

(B) by striking ''is either—'' and all that follows through subclause (II) and inserting ''has a rated wattage that is greater than 40 watts.''; and

(2) by adding at the end the following:

''(52) The term 'BPAR incandescent reflector lamp' means a reflector lamp as shown in figure C78.21–278 on page 32 of ANSI C78.21–2003.

''(53)(A) The term 'BR incandescent reflector lamp' means a reflector lamp that has—

''(i) a bulged section below the major diameter of the bulb and above the approximate baseline of the bulb, as shown in figure 1 (RB) on page 7 of ANSI C79.1—1994, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

''(ii) a finished size and shape shown in ANSI C78.21—1989, including the referenced reflective characteristics in part 7 of ANSI C78.21.

''(B) The term 'BR30' refers to a BR incandescent reflector lamp with a diameter of 30/8ths of an inch and the term 'BR40' refers to a BR incandescent reflector lamp with a diameter of 40/8ths of an inch.

''(54)(A) The term 'ER incandescent reflector lamp' means a reflector lamp that has—

''(i) an elliptical section below the major diameter of the bulb and above the approximate

baseline of the bulb, as shown in figure 1 (RE) on page 7 of ANSI C79.1—1994, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

''(ii) a finished size and shape shown in ANSI C78.21—1989, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph).

''(B) The term 'ER30' refers to an ER incandescent reflector lamp with a diameter of 30/8ths of an inch and the term 'ER40' refers to an ER incandescent reflector lamp with a diameter of 40/8ths of an inch.

''(55) The term 'R20 incandescent reflector lamp' means a reflector lamp that has a face diameter of approximately 2.5 inches, as shown in figure 1(R) on page 7 of ANSI C79.1–1994.''.

(b) STANDARDS FOR FLUORESCENT LAMPS AND INCANDESCENT REFLECTOR LAMPS.—Section 325(i) of the Energy Policy and Conservation Act (42 U.S.C. 6925(i)) is amended by striking paragraph (1) and inserting the following:

''(1) STANDARDS.—

"(A) DEFINITION OF EFFECTIVE DATE.—In this paragraph, except as specified in subparagraphs (C) and (D), the term 'effective date' means, with respect to each type of lamp specified in a table contained in subparagraph (B), the last day of the period of months corresponding to that type of lamp, as specified in the table, that follows the date of enactment of the [short title].

"(B) MINIMUM STANDARDS.—Each of the following general service fluorescent lamps and incandescent reflector lamps manufactured after the effective date specified in the tables contained in this paragraph shall meet or exceed the following lamp efficacy and CRI standards:

"FLUORESCENT LAMPS

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

"INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
40–50	10.5	36
51–66	11.0	36
67–85	12.5	36

''INCANDESCENT REFLECTOR LAMPS—Continued

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
86–115	14.0	36
116–155	14.5	36
156–205	15.0	36

''(C) EXEMPTIONS.—The standards specified in subparagraph (B) shall not apply to the following types of incandescent reflector lamps:

''(i) Lamps rated at 50 watts or less of the following types: ER30, BR30, BR40, and ER40 lamps.

''(ii) Lamps rated at 65 watts of the following types: BR30, BR40, and ER40 lamps.

''(iii) R20 incandescent reflector lamps of 45 watts or less.

''(D) EFFECTIVE DATES.—

''(i) ER, BR, AND BPAR LAMPS.—Except as provided in subparagraph (A), the standards specified in subparagraph (B) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008.

"(ii) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (B) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after January 1, 2008.".

SEC. 123. USE OF ENERGY EFFICIENT LIGHTING FIXTURES AND BULBS.

(a) IN GENERAL.—Chapter 33 of title 40, United States Code, is amended—

(1) by redesignating sections 3313, 3314, and 3315 as sections 3314, 3315, and 3316, respectively; and

(2) by inserting after section 3312 the following:

"§ 3313. Use of energy efficient lighting fixtures and bulbs

"(a) CONSTRUCTION AND ALTERATION OF PUBLIC BUILDINGS.—Each public building constructed or significantly altered by the Administrator of General Services shall be equipped, to the maximum extent feasible as determined by the Administrator, with lighting fixtures and bulbs that are energy efficient.

''(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each lighting fixture or bulb that is replaced by the Administrator in the normal course of maintenance of public buildings shall be replaced, to the maximum extent feasible as determined by the Administrator, with a lighting fixture or bulb that is energy efficient.

''(c) CONSIDERATIONS.—In making a determination under this section concerning the feasibility of installing a lighting fixture or bulb that is energy efficient, the Administrator shall consider—

''(1) the life cycle cost effectiveness of the fixture or bulb;

''(2) the compatibility of the fixture or bulb with existing equipment;

''(3) whether use of the fixture or bulb could result in interference with productivity;

''(4) the aesthetics relating to use of the fixture or bulb; and

''(5) such other factors as the Administrator determines appropriate.

''(d) ENERGY STAR.—A lighting fixture or bulb shall be treated as being energy efficient for purposes of this section if—

''(1) the fixture or bulb is certified under the Energy Star program established by section 324A of

the Energy Policy and Conservation Act (42 U.S.C. 6294a);

''(2) in the case of all LED luminaires, lamps, and systems whose efficacy (lumens per watt) and Color Rendering Index (CRI) meet the requirements for minimum luminaire efficacy and CRI for the Energy Star certification, as verified by an independent third-party testing laboratory that conducts its tests according to the procedures and recommendations of the Illuminating Engineering Society of North America, even if these luminaires, lamps, and systems have not received such certification; or

''(3) the Administrator has otherwise determined that the fixture or bulb is energy efficient.

''(e) SIGNIFICANT ALTERATIONS.—A public building shall be treated as being significantly altered for purposes of subsection (a) if the alteration is subject to congressional approval under section 3307.

''(f) EFFECTIVE DATE.—The requirements of subsections (a) and (b) shall take effect one year after the date of enactment of this subsection.''.

(b) CONFORMING AMENDMENT.—The analysis for chapter 33 of title 40, United States Code, is amended by striking the items relating to sections 3313, 3314, and 3315 and inserting the following:

''3313. Use of energy efficient lighting fixtures and bulbs.

Subtitle C—Residential Building Efficiency

SEC. 131. ENCOURAGING STRONGER 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) The Secretary shall support updating the national model building energy codes and standards at least every three years to achieve overall energy savings, compared to the 2006 IECC for residential buildings and ASHRAE Standard 90.1 2004 for commercial buildings, of at least—

''(A) 30 percent by 2010;

''(B) 50 percent by 2020; and

''(C) targets to be set by the Secretary in intermediate and subsequent years, at the maximum level of energy efficiency that is technologically feasible and life-cycle cost effective.

''(2)(A) Whenever the provisions of the IECC or ASHRAE Standard 90.1 regarding building energy use

are revised, the Secretary shall, not later than 6 months after the date of such revision, determine—

''(i) whether such revision will improve energy efficiency in buildings; and

''(ii) whether such revision will meet the targets under paragraph (1).

''(B) If the Secretary makes a determination under subparagraph (A)(ii) that a code or standard does not meet the targets under paragraph (1), or if a national model code or standard is not updated for more than three years, then the Secretary shall within 12 months propose a modified code or standard that meets such targets. The modified code or standard shall serve as the baseline for the next determination under subparagraph (A)(i).

''(C) The Secretary shall provide the opportunity for public comment on targets, determinations, and modified codes and standards under this subsection, and shall publish notice of targets, determinations, and modified codes and standards under this subsection in the Federal Register.

''(b) STATE CERTIFICATION OF BUILDING ENERGY CODE UPDATES.—(1) Not later than 2 years after the date of enactment of the [short title], each State shall certify to the Secretary that it has reviewed and updated the provisions of its residential and commercial building codes

regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the 2006 IECC for residential buildings and the ASHRAE Standard 90.1-2004 for commercial buildings, or achieve equivalent or greater energy savings.

''(2)(A) If the Secretary makes an affirmative determination under subsection (a)(2)(A)(i) or proposes a modified code or standard under subsection (a)(2)(B), each State shall within 2 years certify that it has reviewed and updated the provisions of its building code regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the revised code or standard, or achieve equivalent or greater energy savings.

''(B) If the Secretary fails to make a determination under subsection (a)(2)(A)(i) by the date specified in subsection (a)(2), or makes a negative determination, each State shall within 2 years after the specified date or the date of the determination, certify that it has reviewed the revised code or standard, and updated the provisions of its building code regarding energy efficiency to meet or exceed any provisions found to improve energy efficiency in buildings, or to achieve equivalent or greater energy savings in other ways.

''(c) STATE CERTIFICATION OF COMPLIANCE WITH BUILDING CODES.—(1) Each State shall, not later than 3 years after a certification under subsection (b), certify that it has achieved compliance with the certified building energy code. Such certification shall include documentation of the rate of compliance based on independent inspections of a random sample of the new and renovated buildings covered by the code in the preceding year.

''(2) A State shall be considered to achieve compliance under paragraph (1) if—

''(A) at least 90 percent of new and renovated buildings covered by the code in the preceding year substantially meet all the requirements of the code; or

''(B) the estimated excess energy use of new and renovated buildings that did not meet the code in the preceding year, compared to a baseline of comparable buildings that meet the code, is not more than 10 percent of the estimated energy use of all new and renovated buildings covered by the code in the preceding year.

''(d) FAILURE TO MEET DEADLINES.—(1) The Secretary shall permit extensions of the deadlines for the certification requirements under subsections (b) and (c) of this section for up to 1 year 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.

''(2) Any State for which the Secretary has not accepted a certification by a deadline under subsection (b) or (c) of this section, with any extension granted under paragraph (1), is out of compliance with this section.

''(3) In any State that is out of compliance with this section, a local government may be in compliance with this section by meeting the certification requirements under subsections (b) and (c) of this section.

''(e) TECHNICAL ASSISTANCE.—(1) The Secretary shall provide technical assistance, including building energy analysis and design tools, building demonstrations, and design assistance and training to enable the national model building energy codes and standards to meet the targets in subsection (a)(1).

''(2) The Secretary shall provide technical assistance to States to implement the requirements of this section, including procedures for States to demonstrate that their code provisions achieve equivalent or greater energy savings than the national model codes and standards, 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.

''(f) 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 2006 IECC, or any succeeding version of that code that has received an affirmative de-

termination from the Secretary under subsection (a)(2)(A)(i); 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 (a)(2)(A)(i); 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 or more 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 2008 through 2012; and

''(ii) such sums as are necessary for fiscal year 2013 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.''.

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

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

SEC. 132. ENERGY CODE IMPROVEMENTS APPLICABLE TO MANUFACTURED HOUSING.

(a) IN GENERAL.—Not later than 4 years after the date of enactment of this Act, the Secretary of Energy shall by regulation establish standards for energy efficiency in manufactured housing.

(b) CERTAIN REQUIREMENTS.—The regulations under subsection (a) shall be in accordance with the following:

(1) The energy conservation standards established under this subsection shall be based on the most recent version of the International Energy Conservation Code (including supplements) except where the Secretary finds that such code is not cost-effective, or a more stringent standard would be

more cost-effective, based on total life-cycle construction and operating costs.

(2) The energy conservation standards established under this subsection may—

(A) take into consideration the design and factory construction techniques of manufactured homes;

(B) be based on the climate zones established by the Department of Housing and Urban Development rather than those under the International Energy Conservation Code; and

(C) provide for alternative practices that result in net estimated energy consumption equal to or less than the specified standards.

(3) The energy conservation standards established under this subsection shall be updated within one year after the date of enactment of this Act and within one year after any revision to the International Energy Conservation Code.

(c) ENFORCEMENT.—Any manufacturer of manufactured housing that violates a provision of the regulations under subsection (a) is liable to the United States for a civil penalty in an amount not exceeding 1 percent of the

manufacturer's retail list price of the manufactured housing.

SEC. 133. BASELINE BUILDING DESIGNS.

Section 327(f)(3)(D) of the Energy Policy and Conservation Act (42 U.S.C. 6297(f)(3)(D)) is amended to read as follows:

''(D) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline building designs contain a covered product subject to an energy conservation standard established in or prescribed under section 325, the baseline building designs are based on the efficiency level for such covered product which—

''(i) meets but does not exceed such standard;

''(ii) is the efficiency level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d) of this section; or

''(iii) is a level that, when evaluated in the baseline building design, the State has found to be feasible and cost-effective.''.

SEC. 134. REAUTHORIZATION OF WEATHERIZATION ASSISTANCE PROGRAM.

Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking ''$500,000,000 for fiscal year 2006, $600,000,000 for fiscal year 2007, and $700,000,000 for fiscal year 2008'' and inserting ''$600,000,000 for fiscal year 2007, and $750,000,000 for each of fiscal years 2008, 2009, 2010, 2011, and 2012''.

Subtitle D—Commercial and Federal Building Efficiency

SEC. 141. DEFINITIONS.

In this subtitle:

(1) COMMITTEE.—The term ''Committee'' means the Green Building Advisory Committee established under section 142(c)(1).

(2) DIRECTOR.—The term ''Director'' means the individual appointed to the position established under section 142(b).

(3) FEDERAL FACILITY.—

(A) IN GENERAL.—The term ''Federal facility'' means any building or facility the intended use of which requires the building or facility to be—

(i) accessible to the public; and

(ii) constructed or altered by or on behalf of the United States.

(B) EXCLUSIONS.—The term ''Federal facility'' does not include a privately-owned residential or commercial structure that is not leased by the Federal Government.

(4) HIGH-PERFORMANCE GREEN BUILDING.—The term ''high-performance green building'' means a building that, during its life-cycle—

(A) reduces energy, water, and material resource use;

(B) improves indoor environmental quality including, reducing indoor pollution, improving thermal comfort, and improving lighting and acoustic environments that affect occupant health and productivity;

(C) reduces negative impacts on the environment throughout the life-cycle of the building, including air and water pollution and waste generation;

(D) increases the use of environmentally preferable products, including biobased, recycled content, and nontoxic products with lower life-cycle impacts;

(E) increases reuse and recycling opportunities;

(F) integrates systems in the building;

(G) reduces the environmental and energy impacts of transportation through building location and site design that support a full range of transportation choices for users of the building; and

(H) considers indoor and outdoor effects of the building on human health and the environment, including—

(i) improvements in worker productivity;

(ii) the life-cycle impacts of building materials and operations; and

(iii) other factors that the Office considers to be appropriate.

(5) LIFE-CYCLE.—The term ''life-cycle'', with respect to a high-performance green building, means all stages of the useful life of the building (including components, equipment, systems, and controls of the building) beginning at conception of a green building project and continuing through site selection, design, construction, landscaping, commissioning, operation,

maintenance, renovation, deconstruction or demolition, removal, and recycling of the green building.

(6) LIFE-CYCLE ASSESSMENT.—The term ''life-cycle assessment'' means a comprehensive system approach for measuring the environmental performance of a product or service over the life of the product or service, beginning at raw materials acquisition and continuing through manufacturing, transportation, installation, use, reuse, and end-of-life waste management.

(7) LIFE-CYCLE COSTING.—The term ''life-cycle costing'', with respect to a high-performance green building, means a technique of economic evaluation that—

(A) sums, over a given study period, the costs of initial investment (less resale value), replacements, operations (including energy use), and maintenance and repair of an investment decision; and

(B) is expressed—

(i) in present value terms, in the case of a study period equivalent to the longest useful life of the building, determined by taking into consideration the typical life of

such a building in the area in which the building is to be located; or

(ii) in annual value terms, in the case of any other study period.

(8) OFFICE.—The term ''Office'' means the Office of High-Performance Green Buildings established under section 142(a).

(9) PRACTICES.—The term ''practices'' mean design, financing, permitting, construction, commissioning, operation and maintenance, and other practices that contribute to achieving zero-net-energy commercial buildings.

(10) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(11) ZERO-NET-ENERGY.—The term ''zero-net-energy commercial building'' means a building that is designed, constructed, and operated to—

(A) produce on site and distribute as much energy on an annual basis as it uses from external sources;

(B) result in no net emissions of greenhouse gases; and

(C) be economically viable to construct and operate, through a combination of ultra energy-efficient building materials and equipment, ef-

fective control systems, and onsite power generation from renewable or other energy sources; and

SEC. 142. HIGH-PERFORMANCE GREEN BUILDINGS.

(a) ESTABLISHMENT OF OFFICE.—Not later than 60 days after the date of enactment of this Act, the Secretary shall establish within the Office of Energy Efficiency and Renewable Energy an Office of High-Performance Green Buildings.

(b) DIRECTOR.—

(1) APPOINTMENT.—The Secretary shall appoint an individual to serve as Director, a position in the career-reserved Senior Executive service, to carry out duties as required under this subtitle.

(2) COMPENSATION.—The compensation of the Director shall not exceed the maximum rate of basic pay for the Senior Executive Service under section 5382 of title 5, United States Code, including any applicable locality-based comparability payment that may be authorized under section 5304(h)(2)(C) of that title.

(3) DUTIES.—The Director shall—

(A) identify and biennially reassess improved or higher rating standards recommended by the Committee;

(B) identify and develop green building standards that could be used for all types of Federal facilities;

(C) establish green practices that can be used throughout the life of a Federal facility;

(D) review and analyze current Federal budget practices and life-cycle costing issues, and make recommendations to Congress, in accordance with section 145;

(E) identify within the planning, budgeting, and construction process all types of Federal facility procedures that inhibit new and existing Federal facilities from becoming high-performance green buildings as measured by—

(i) a silver rating, as defined by the Leadership in Energy and Environmental Design Building Rating System standard established by the United States Green Building Council (or an equivalent rating); or

(ii) an improved or higher rating standard, as identified by the Committee;

(F) identify inconsistencies, as reported to the Committee, in Federal law with respect to

product acquisition guidelines and high-performance product guidelines;

(G) recommend language for uniform standards for use by Federal agencies in environmentally responsible acquisition;

(H) in coordination with the Office of Management and Budget, review the budget process for capital programs with respect to alternatives for—

(i) restructuring of budgets to require the use of complete energy- and environmental-cost accounting;

(ii) using operations expenditures in budget-related decisions while simultaneously incorporating productivity and health measures (as those measures can be quantified by the Office, with the assistance of universities and national laboratories);

(iii) permitting Federal agencies to retain all identified savings accrued as a result of the use of life-cycle costing for future high-performance green building initiatives; and

(iv) identifying short-term and long-term cost savings that accrue from high-performance green buildings, including those relating to health and productivity;

(I) identify green, self-sustaining technologies to address the operational needs of Federal facilities in times of national security emergencies, natural disasters, or other dire emergencies;

(J) in consultation with the Committee, develop and implement a comprehensive indoor air quality program for all Federal facilities to ensure the safety of Federal workers and facility occupants—

(i) during new construction and renovation of facilities; and

(ii) in existing facilities; and

(K) perform such other functions as are assigned under this subtitle.

(4) COORDINATION.—The Director shall ensure full coordination of high-performance green building information and activities, including activities under this subtitle, within the Federal Government by working with the General Services Administration and all relevant agencies, including, at a minimum—

(A) the Environmental Protection Agency;

(B) the Office of the Federal Environmental Executive;

(C) the Office of Federal Procurement Policy;

(D) the Department of Energy, particularly the Federal Energy Management Program;

(E) the Department of Health and Human Services;

(F) the Department of Defense;

(G) such other Federal agencies as the Director considers to be appropriate; and

(H) such nonprofit green building rating and analysis entities as the Director determines can offer support, expertise, and review services.

(5) COMPLIANCE WITH CODES.—The Office shall comply with all codes it proposes.

(6) CERTIFICATION.—The Secretary of Energy shall certify in writing to the Chairman and Ranking Member of the Committee on Energy and Commerce of the House of Representatives that the Office has a neutral carbon footprint.

(c) GREEN BUILDING ADVISORY COMMITTEE.—

(1) ESTABLISHMENT AND MEMBERSHIP.—Not later than 180 days after the date of enactment of this Act, the Director shall establish a senior-level Federal green building advisory committee, which shall provide advice and recommendations in accordance with this subtitle, and shall include representation from—

(A) the design professions;

(B) the development, construction, and real estate industries;

(C) financial institutions;

(D) building owners and operators from the public and private sectors;

(E) academic and research organizations;

(F) State and local building code agencies;

(G) independent green building associations or councils;

(H) experts in indoor air quality and environmental factors;

(I) State and utility energy efficiency programs; and

(J) nongovernmental energy efficiency organizations.

(2) MEETINGS.—The Director shall establish a regular schedule of meetings for the Committee,

which shall convene a minimum of 6 times each year.

(3) DUTIES.—The Committee shall provide advice and expertise for use by the Director in carrying out the duties under this subtitle, including such recommendations relating to Federal activities carried out under sections 145 and 146 as are agreed to by a majority of the members of the Committee.

(4) COMPENSATION OF MEMBERS.—Each member of the Committee who is not an officer or employee of the Federal Government shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level III of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which such member is engaged in the performance of the duties of the Committee. All members of the Committee who are officers or employees of the United States shall serve without compensation in addition to that received for their services as officers or employees of the United States.

(5) TRAVEL EXPENSES.—The members of the Committee shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of

chapter 57 of title 5, United States Code, while away from their homes or regular places of business in the performance of services for the Committee.

(6) FACA EXEMPTION.—The Committee shall not be subject to the Federal Advisory Committee Act (5 U.S.C. App.).

(d) REPORT.—Not later than 2 years after the date of enactment of this Act, and biennially thereafter, the Director shall submit to Congress a report that—

(1) describes the status of the green building initiatives under this subtitle and other Federal programs in effect as of the date of the report, including—

(A) the extent to which the programs are being carried out in accordance with this subtitle; and

(B) the status of funding requests and appropriations for those programs;

(2) summarizes and highlights development, at the State and local level, of green building initiatives, including executive orders, policies, or laws adopted promoting green building (including the status of implementation of those initiatives); and

(3) includes, for the 2-year period covered by the report, recommendations to address each of the

matters, and a plan for implementation of each recommendation, described in paragraph (1) of this subsection and subparagraphs (E) through (I) of subsection (b)(3).

SEC. 143. ZERO-NET-ENERGY COMMERCIAL BUILDINGS GOAL.

(a) GOAL.—The Director, in collaboration with the Committee, shall study, refine, and adopt a national goal to reduce commercial building energy use and achieve zero-net-energy commercial buildings. Unless the Director concludes that such targets are unachievable or unrealistic, the goal shall include objectives that—

(1) all new commercial buildings constructed after the beginning of 2025 are zero-net-energy commercial buildings;

(2) by 2035, 50 percent of the then existing stock of commercial buildings that were constructed before 2025 are zero-net-energy commercial buildings; and

(3) by 2050, all commercial buildings are zero-net-energy commercial buildings.

(b) FEDERAL COMPLIANCE WITH GOAL.—The Director shall further identify and adopt a strategy of development and widespread deployment of technologies, practices, and policies leading to zero-net-energy performance

for all Federal buildings in accordance with the adopted goal.

SEC. 144. PUBLIC OUTREACH.

The Director, in coordination with the Committee, shall carry out public outreach to inform individuals and entities of the information and services available Government-wide by—

(1) establishing and maintaining a national high-performance green building clearinghouse, including on the Internet, that—

(A) identifies existing similar efforts and coordinates activities of common interest; and

(B) provides information relating to high-performance green buildings, including hyperlinks to Internet sites that describe the activities, information, and resources of—

(i) the Federal Government;

(ii) State and local governments;

(iii) the private sector (including non-governmental and nonprofit entities and organizations); and

(iv) international organizations;

(2) identifying and recommending educational resources for implementing high-performance green

building practices, including security and emergency benefits and practices;

(3) providing access to technical assistance on using tools and resources to make more cost-effective, energy-efficient, health-protective, and environmentally beneficial decisions for constructing high-performance green buildings, particularly tools available to conduct life-cycle costing and life-cycle assessment;

(4) providing information on application processes for certifying a high-performance green building, including certification and commissioning;

(5) providing technical information, market research, or other forms of assistance or advice that would be useful in planning and constructing high-performance green buildings;

(6) using such other methods as are determined by the Director to be appropriate;

(7) surveying existing research and studies relating to high-performance green buildings;

(8) coordinating activities of common interest;

(9) developing and recommending a high-performance green building practices that—

(A) identify information and research needs, including the relationships between health, occupant productivity, and each of—

(i) pollutant emissions from materials and products in the building;

(ii) natural day lighting;

(iii) ventilation choices and technologies;

(iv) heating, cooling, and system control choices and technologies;

(v) moisture control and mold;

(vi) maintenance, cleaning, and pest control activities;

(vii) acoustics; and

(viii) other issues relating to the health, comfort, productivity, and performance of occupants of the building; and

(B) promote the development and dissemination of high-performance green building measurement tools that, at a minimum, may be used—

(i) to monitor and assess the life-cycle performance of facilities (including demonstration projects) built as high-performance green buildings; and

(ii) to perform life-cycle assessments;

(10) assisting the budget and life-cycle costing functions of the Office under section 145;

(11) studying and identifying potential benefits of green buildings relating to security, natural disaster, and emergency needs of the Federal Government; and

(12) supporting other research initiatives determined by the Office.

SEC. 145. BUDGET AND LIFE-CYCLE COSTING AND CONTRACTING.

The Director, in coordination with the Committee, shall—

(1) identify, review, and analyze current budget and contracting practices that affect achievement of high-performance green buildings, including the identification of barriers to green building life-cycle costing and budgetary issues;

(2) develop guidance and conduct training sessions with budget specialists and contracting personnel from Federal agencies and budget examiners to apply life-cycle cost criteria to actual projects;

(3) identify tools to aid life-cycle cost decision-making; and

(4) explore the feasibility of incorporating the benefits of green buildings, such as security benefits, into a cost-budget analysis to aid in life-cycle costing for budget and decision making processes.

SEC. 146. INCENTIVES.

As soon as practicable after the date of enactment of this Act, the Director shall identify incentives to encourage the use of green buildings and related technology in the operations of the Federal Government, including through—

(1) the provision of recognition awards; and

(2) the maximum feasible retention of financial savings in the annual budgets of Federal agencies for use in reinvesting in future green building initiatives.

SEC. 147. FEDERAL PROCUREMENT.

(a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Director of the Office of Federal Procurement Policy, in consultation with the Director and the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall promulgate revisions of the applicable acquisition regulations, to take effect as of the date of promulgation of the revisions—

(1) to direct any Federal procurement executives involved in the acquisition, construction, or

major renovation (including contracting for the construction or major renovation) of any facility—

(A) to employ integrated design principles;

(B) to improve site selection for environmental and community benefits;

(C) to optimize building and systems energy performance;

(D) to protect and conserve water;

(E) to enhance indoor environmental quality; and

(F) to reduce environmental impacts of materials and waste flows; and

(2) to direct Federal procurement executives involved in leasing buildings, to give preference to the lease of facilities that—

(A) are energy-efficient; and

(B) to the maximum extent practicable, have applied contemporary high-performance and sustainable design principles during construction or renovation.

(b) GUIDANCE.—Not later than 90 days after the date of promulgation of the revised regulations under subsection (a), the Director of the Office of Procurement Policy shall issue guidance to all Federal procurement executives providing direction and instructions to renegotiate

the design of proposed facilities, renovations for existing facilities, and leased facilities to incorporate improvements that are consistent with this section.

SEC. 148. USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.

(a) ENERGY AND WATER EVALUATIONS.—Not later than 1 year after the date of enactment of this Act, and every 3 years thereafter, each Federal agency shall complete a comprehensive energy and water evaluation provided by the Director for—

(1) each building and other facility of the Federal agency that is larger than a minimum size established by the Director; and

(2) any other building or other facility of the Federal agency that meets any other criteria established by the Director.

(b) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, and every 3 years thereafter, each Federal agency—

(A) shall fully implement each energy and water-saving measure that the Federal agency identified in the evaluation conducted under

subsection (a) that has a 15-year simple payback period; and

(B) may implement any energy or water-saving measure that the Federal agency identified in the evaluation conducted under subsection (a) that has longer than a 15-year simple payback period.

(2) PAYBACK PERIOD.—

(A) IN GENERAL.—For the purpose of paragraph (1), a measure shall be considered to have a 15-year simple payback if the quotient obtained under subparagraph (B) is less than or equal to 15.

(B) QUOTIENT.—The quotient for a measure shall be obtained by dividing—

(i) the estimated initial implementation cost of the measure (other than financing costs); by

(ii) the annual cost savings from the measure.

(3) COST SAVINGS.—For the purpose of paragraph (2), cost savings shall include net savings in estimated—

(A) energy and water costs;

(B) operations, maintenance, repair, replacement, and other direct costs; and

(C) external environmental, health, security, and other costs based on a cost adder, as determined in accordance with the guidelines issued by the Director under subsection (d).

(4) EXCEPTIONS.—The Director may modify or make exceptions to the calculation of a 15-year simple payback under this paragraph in the guidelines issued by the Director under subsection (d).

(c) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under subsection (b), each Federal agency shall carry out—

(1) commissioning;

(2) operations, maintenance, and repair; and

(3) measurement and verification of energy and water savings.

(d) GUIDELINES.—

(1) IN GENERAL.—The Director shall issue guidelines and necessary criteria that each Federal agency shall follow for implementation of—

(A) subsection (a) not later than 90 days after the date of enactment of this Act; and

(B) subsections (b) and (c) not later than 180 days after the date of enactment of this Act.

(2) RELATIONSHIP TO FUNDING SOURCE.—The guidelines issued by the Director under paragraph (1) shall be appropriate and uniform for measures funded with each type of funding made available under subsection (h).

(e) WEB-BASED CERTIFICATION.—

(1) IN GENERAL.—For each building and other facility that meets the criteria established by the Director under subsection (a), each Federal agency shall use a web-based tracking system to certify compliance with the requirements for—

(A) energy and water evaluations under subsection (a);

(B) implementation of identified energy and water measures under subsection (b); and

(C) follow-up on implemented measures under subsection (c).

(2) DEPLOYMENT.—Not later than 1 year after the date of enactment of this Act, the Director shall deploy the web-based tracking system required under this subsection in a manner that tracks, at a minimum—

(A) the covered buildings and other facilities;

(B) the status of evaluations;

(C) the identified measures, with estimated costs and savings;

(D) the status of implementing the measures;

(E) the measured savings; and

(F) the persistence of savings.

(3) AVAILABILITY.—

(A) IN GENERAL.—Subject to subparagraph (B), the Director shall make the web-based tracking system required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

(B) EXEMPTIONS.—At the request of a Federal agency, the Director may exempt specific data for specific buildings from disclosure under subparagraph (A) for national security purposes.

(f) BENCHMARKING OF FEDERAL FACILITIES.—

(1) IN GENERAL.—Each Federal agency shall enter energy use data for each building and other facility of the Federal agency into a building energy

use benchmarking system, such as the Energy Star Portfolio Manager.

(2) SYSTEM AND GUIDANCE.—Not later than 1 year after the date of enactment of this Act, the Director shall—

(A) select or develop the building energy use benchmarking system required under this subsection for each type of building; and

(B) issue guidance for use of the system.

(g) FEDERAL AGENCY SCORECARDS.—

(1) IN GENERAL.—The Director shall issue quarterly scorecards for energy management activities carried out by each Federal agency that includes—

(A) summaries of the status of—

(i) energy and water evaluations under subsection (a);

(ii) implementation of identified energy and water measures under subsection (b); and

(iii) follow-up on implemented measures under subsection (c); and

(B) any other means of measuring performance that the Director considers appropriate.

(2) AVAILABILITY.—The Director shall make the scorecards required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

(h) FUNDING OPTIONS.—

(1) IN GENERAL.—To carry out subsections (a) through (c), a Federal agency may use any combination of—

(A) appropriated funds made available under this subtitle; and

(B) private financing, including financing available through energy savings performance contracts or utility energy savings contracts.

(2) COMBINED FUNDING FOR SAME MEASURE.—A Federal agency may use any combination of appropriated funds and private financing described in paragraph (1) to carry out the same measure under this section, with proportional allocation for any energy and water savings.

(3) LACK OF APPROPRIATED FUNDS.—Since measures may be carried out using private financing described in paragraph (1), a lack of available appropriations shall not be considered a sufficient reason for the failure of a Federal agency to comply with subsections (a) through (c).

(i) USE OF HIGHLY ENERGY EFFICIENT COMMERCIAL WATER HEATING EQUIPMENT IN FEDERAL BUILDINGS.—

(1) Chapter 33 of title 40 of the United States Code is amended by designating sections 3313, 3314, and 3315 as 3314, 3315, and 3316, respectively and inserting after section 3312 the following:

"§ 3313. Use of highly energy efficient commercial water heating equipment in Federal buildings

''(a) CONSTRUCTION AND ALTERATION OF PUBLIC BUILDINGS.—Each public building constructed or altered by the Administrator of General Services equipped with commercial water heating equipment shall be equipped, to the maximum extent feasible as determined by the Administrator, with commercial water heating equipment that are highly energy efficient.

''(b) MAINTENANCE.—Each commercial water heater replaced by the Administrator in the normal course of maintenance or deemed by the Administrator to be currently replaceable in order to find substantial energy savings, shall be replaced, to the maximum extent feasible as determined by the Administrator, with a commercial water heater that is highly energy efficient.

''(c) CONSIDERATIONS.—In making a determination under this section concerning the installation of a commercial water heater that is highly energy efficient, the Administrator shall consider—

''(1) the life cycle cost effectiveness of the commercial water heater;

''(2) the compatibility of the commercial water heater with existing equipment; and

''(3) whether use of the commercial water heater could result in interference with productivity.

''(d) ELIGIBILITY.—A commercial water heater shall be treated as being highly energy efficient for purposes of this section if it—

''(1) is certified under the Energy Star program established by section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a); or

''(2) has thermal efficiencies of at least 90 percent for gas units with inputs up to and including 500,000 Btu per hour, and at least 87 percent for gas units with inputs over 500,000 Btu per hour.''.

(2) The amendment made by this subsection shall take effect on the date 18 months after the date of enactment of this Act.

(3) The table of contents for such chapter 33 is amended by redesignating the items relating to

sections 3313, 3314, and 3315 as 3314, 3315, and 3316, respectively and inserting after section 3312 the following new item:

"3313. Use of highly energy efficient commercial water heating equipment in Federal buildings.".

SEC. 149. DEMONSTRATION PROJECT.

(a) IN GENERAL.—The Director shall establish guidelines to implement a demonstration project to contribute to the research goals of the Office.

(b) PROJECTS.—In accordance with guidelines established by the Director under subsection (a) and the duties of the Director described in this subtitle, the Director shall carry out—

(1) for each of fiscal years 2009 through 2014, 1 demonstration project in a Federal building selected by the Director in accordance with relevant agencies and described in subsection (c)(1), that—

(A) provides for the evaluation of the information obtained through the conduct of projects and activities under this subtitle; and

(B) achieves a platinum rating, as defined by the Leadership in Energy and Environmental Design Building Rating System standard established by the United States Green Building Council (or equivalent rating);

(2) no fewer than 4 demonstration projects at 4 universities, that, as competitively selected by the Director in accordance with subsection (c)(2), have—

(A) appropriate research resources and relevant projects to meet the goals of the demonstration project established by the Office; and

(B) the ability—

(i) to serve as a model for high-performance green building initiatives, including research and education;

(ii) to identify the most effective ways to use high-performance green building and landscape technologies to engage and educate undergraduate and graduate students;

(iii) to effectively implement a high-performance green building education program for students and occupants;

(iv) to demonstrate the effectiveness of various high-performance technologies in each of the 4 climatic regions of the United States described in subsection (c)(2)(B); and

(v) to explore quantifiable and non-quantifiable beneficial impacts on public health and employee and student performance;

(3) demonstration projects to evaluate replicable approaches to achieving various types of commercial buildings in various climates; and

(4) deployment activities to disseminate information on and encourage widespread adoption of technologies, practices, and policies to achieve zero-net-energy commercial buildings or low energy use and effective monitoring of energy use in commercial buildings.

(c) CRITERIA.—

(1) FEDERAL FACILITIES.—With respect to the existing or proposed Federal facility at which a demonstration project under this section is conducted, the Federal facility shall—

(A) be an appropriate model for a project relating to—

(i) the effectiveness of high-performance technologies;

(ii) analysis of materials, components, systems, and emergency operations in the building, and the impact of those mate-

rials, components, and systems, including the impact on the health of building occupants;

(iii) life-cycle costing and life-cycle assessment of building materials and systems; and

(iv) location and design that promote access to the Federal facility through walking, biking, and mass transit; and

(B) possess sufficient technological and organizational adaptability.

(2) UNIVERSITIES.—With respect to the 4 universities at which a demonstration project under this section is conducted—

(A) the universities should be selected, after careful review of all applications received containing the required information, as determined by the Director, based on—

(i) successful and established public-private research and development partnerships;

(ii) demonstrated capabilities to construct or renovate buildings that meet high indoor environmental quality standards;

(iii) organizational flexibility;

(iv) technological adaptability;

(v) the demonstrated capacity of at least 1 university to replicate lessons learned among nearby or sister universities, preferably by participation in groups or consortia that promote sustainability;

(vi) the demonstrated capacity of at least 1 university to have officially-adopted, institution-wide ''green building'' guidelines for all campus building projects; and

(vii) the demonstrated capacity of at least 1 university to have been recognized by similar institutions as a national leader in sustainability education and curriculum for students of the university; and

(B) each university shall be located in a different climatic region of the United States, each of which regions shall have, as determined by the Office—

(i) a hot, dry climate;

(ii) a hot, humid climate;

(iii) a cold climate; or

(iv) a temperate climate (including a climate with cold winters and humid summers).

(d) REPORT.—Not later than 1 year after the date of enactment of this Act, and annually thereafter through September 30, 2014—

(1) the Director shall submit to the Secretary a report that describes the status of the demonstration projects; and

(2) each University at which a demonstration project under this section is conducted shall submit to the Secretary a report that describes the status of the demonstration projects under this section.

SEC. 150. ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.

(a) IN GENERAL.—(1) Not later than 90 days after the date of enactment of this Act, the Secretary of Energy and Administrator of the Environmental Protection Agency shall jointly, after consulting with information technology industry and other interested parties, initiate a voluntary national information program for those types of data centers and data center equipment and facilities that are widely used and for which there is a potential for significant data center energy savings as a result of such program.

(2) Such program shall—

(A) consistent with the objectives of paragraph (1), determine the type of data center and data cen-

ter equipment and facilities to be covered under such program; and

(B) include specifications, measurements, and benchmarks that will enable data center operators to make more informed decisions about the energy efficiency and costs of data centers, and that—

(i) reflect the total energy consumption of data centers, including both equipment and facilities, taking into account—

(I) the performance and utilization of servers, data storage devices, and other information technology equipment;

(II) the efficiency of heating, ventilation, and air conditioning, cooling, and power conditioning systems;

(III) energy savings from the adoption of software and data management techniques; and

(IV) other factors determined by the organization described in subsection (b);

(ii) allow for creation of separate specifications, measurements, and benchmarks based on data center size and function, as well as other appropriate characteristics determined by the organization described in subsection (b);

(iii) advance the design and implementation of efficiency technologies to the maximum extent economically practical; and

(iv) provide to data center operators in the private sector and the Federal Government information about best practices and purchasing decisions that reduce the energy consumption of data centers;

(C) publish the information described in subparagraph (B), which may be disseminated through catalogs, trade publications, the Internet, or other mechanisms, that will allow data center operators to assess the energy consumption and potential cost savings of alternative data centers and data center equipment and facilities; and

(D) not later than 1 year after the date of enactment of this Act, and thereafter on an ongoing basis, transmit the information described in subparagraph (B) to the Secretary and the Administrator.

(3) Such program shall be developed and coordinated by the data center efficiency organization described in subsection (b) according to commonly accepted procedures for the development of specifications, measurements, and benchmarks.

(b) DATA CENTER EFFICIENCY ORGANIZATION.—Upon creation of the program under subsection (a), the Secretary and the Administrator shall jointly designate an information technology industry organization to coordinate the program. Such organization shall—

(1) consist of interested parties that have expertise in energy efficiency and in the development, operation, and functionality of computer data centers, information technology equipment, and software, as well as representatives of hardware manufacturers, data center operators, and facility managers;

(2) obtain and address input from Department of Energy National Laboratories or any college, university, research institution, industry association, company, or public interest group with applicable expertise in any of the areas listed in paragraph (1) of this subsection;

(3) follow commonly accepted procedures for the development of specifications and accredited standards development processes;

(4) have a mission to develop and promote energy efficiency for data centers and information technology; and

(5) have the primary responsibility to oversee the development and publishing of the information,

measurements, and benchmarks described in subsection (a) and transmission of such information to the Secretary and the Administrator for their adoption under subsection (c).

(c) ADOPTION OF SPECIFICATIONS.—The Secretary and the Administrator shall jointly, in accordance with the requirements of section 12(d) of the National Technology Transfer Advancement Act of 1995, adopt and publish the specifications, measurements, and benchmarks described in subsection (a) for use by the Federal Energy Management Program and the Energy Star program as energy efficiency requirements for the purposes of those programs.

(d) MONITORING.—The Secretary and the Administrator shall jointly monitor and evaluate the efforts to develop the program described in subsection (a) and, not later than 3 years after the date of enactment of this Act, shall make a determination as to whether such program is consistent with the objectives of subsection (a).

(e) ALTERNATIVE SYSTEM.—If the Secretary and the Administrator make a determination under subsection (d) that a voluntary national information program for data centers consistent with the objectives of subsection (a) has not been developed, the Secretary and the Administrator shall jointly, after consultation with the National Institute

of Standards and Technology, develop, not later than 2 years after such determination, and implement the program under subsection (a).

(f) PROTECTION OF PROPRIETARY INFORMATION.—The Secretary, the Administrator, or the data center efficiency organization shall not disclose any proprietary information or trade secrets provided by any individual or company for the purposes of carrying out this program.

(g) DEFINITIONS.—For purposes of this section:

(1) The term ''data center'' means any facility that primarily contains electronic equipment used to process, store, and transmit digital information, which may be—

(A) a free-standing structure; or

(B) a facility within a larger structure,

that utilizes environmental control equipment to maintain the proper conditions for the operation of electronic equipment.

(2) The term ''data center operator'' means any person or government entity that builds or operates a data center or purchases data center services, equipment, and facilities.

SEC. 151. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—In addition to amounts authorized unser subsections (b) and (c), there are authorized to be appropriated to carry out this subtitle—

(1) $10,000,000 for fiscal year 2008; and

(2) $20,000,000 for each of the fiscal years 2009 through 2014,

to remain available until expended.

(b) DEMONSTRATION PROJECTS.—

(1) FEDERAL DEMONSTRATION PROJECT.—There are authorized to be appropriated to carry out the Federal demonstration project described in section 149(b)(1) $10,000,000 for the period of fiscal years 2009 through 2014, to remain available until expended.

(2) UNIVERSITY DEMONSTRATION PROJECTS.—There are authorized to be appropriated to carry out the university demonstration projects described in section 149(b)(2) $10,000,000 for the period of fiscal years 2009 through 2014, to remain available until expended.

(c) ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.—There are authorized to be appropriated to each of the Secretary and the Administrator for carrying out section 150 $250,000 for each of the fiscal years 2008 through 2012.

Subtitle E—Industrial Energy

SEC. 161. INDUSTRIAL ENERGY.

(a) AMENDMENT.—Title III of the Energy Conservation and Policy Act (42 U.S.C. 6201 and following) is amended by adding the following after part D:

"PART E—INDUSTRIAL ENERGY

"SEC. 371. SURVEY OF WASTE INDUSTRIAL ENERGY RECOVERY AND POTENTIAL USE.

''Congress finds that__

''(1) the Nation should encourage the use of otherwise wasted energy and the development of combined heat and power and other waste energy recovery projects where there is wasted thermal energy in large volumes at potentially useful temperatures;

''(2) such projects would increase energy efficiency and lower pollution by generating power with no incremental fossil fuel consumption;

''(3) because recovered waste energy and combined heat and power projects are associated with end-uses of thermal energy and electricity at the local level, they help avoid new transmission lines, reduce line losses, reduce local air pollutant emissions, and reduce vulnerability to extreme weather and terrorism; and

''(4) States, localities, electric utilities, and other electricity customers may benefit from private investments in recovered waste energy and combined heat and power projects at industrial and commercial sites by avoiding generation, transmission and distribution expenses, and transmission line loss expenses that may otherwise be required to be recovered from ratepayers.

"SEC. 372. DEFINITIONS.

''For purposes of this Part:

''(1) The term 'Administrator' means the Administrator of the Environmental Protection Agency.

''(2) The term 'waste energy' means__

''(A) exhaust heat and flared gases from any industrial process;

''(B) waste gas or industrial tail gas that would otherwise be flared, incinerated or vented;

''(C) a pressure drop in any gas, excluding any pressure drop to a condenser that subsequently vents the resulting heat; and

''(D) such other forms of waste energy as the Administrator may identify.

''(3) The term 'recoverable waste energy' means waste energy from which electricity or useful ther-

mal energy may be recovered through modification of existing facilities or addition of new facilities.

''(4) The term 'net excess power' means, for any facility, recoverable waste energy recovered in the form of electricity in amounts exceeding the total consumption of electricity at the specific time of generation on the site where the facility is located.

''(5) The term 'useful thermal energy' is energy in the forms of direct heat, steam, hot water, or other thermal forms that is used in production and beneficial measures for heating, cooling, humidity control, process use, or other valid thermal end-use energy requirements, and for which fuel or electricity would otherwise be consumed.

''(6) The term 'combined heat and power system' means a facility—

''(A) that simultaneously and efficiently produces useful thermal energy and electricity; and

''(B) that recovers not less than 60 percent of the energy value in the fuel (on a lower-heating-value basis) in the form of useful thermal energy and electricity.

''(7) The terms 'electric utility', 'State regulated electric utility', 'nonregulated electric utility'

and other terms used in this Part have the same meanings as when such terms are used in title I of the Public Utility Regulatory Policies Act of 1978 (relating to retail regulatory policies for electric utilities).

"SEC. 373. SURVEY AND REGISTRY.

''(a) RECOVERABLE WASTE-ENERGY INVENTORY PROGRAM.—The Administrator, in cooperation with State energy offices, shall establish a Recoverable Waste-Energy Inventory Program. The program shall include an ongoing survey of all major industrial and large commercial combustion sources in the United States and the sites where these are located, together with a review of each for quantity and quality of waste energy.

''(b) CRITERIA.—The Administrator shall, within 120 days after the enactment of this section, develop and publish proposed criteria subject to notice and comment, and within 270 days of enactment, establish final criteria, to identify and designate those sources and sites in the inventory under subsection (a) where recoverable waste energy projects or combined heat and power system projects may have economic feasibility with a payback of invested costs within 5 years or less from the date of first full project operation (including incentives offered under this Part). Such criteria will include standards that insure that

projects proposed for inclusion in the Registry are not developed for the primary purpose of making sales of excess electric power under the regulatory treatment provided under this Part.

''(c) TECHNICAL SUPPORT.—The Administrator shall provide to owners or operators of combustion sources technical support and offer partial funding (up to one-half of total costs) for feasibility studies to confirm whether or not investment in recovery of waste energy or combined heat and power at that source would offer a payback period of 5 years or less.

''(d) REGISTRY.—(1) The Administrator shall, within one year after the enactment of this section, establish a Registry of Recoverable Waste-energy Sources, and sites on which those sources are located, which meet the criteria set forth under subsection (b). The Administrator shall update the Registry on not less than a monthly basis, and make the Registry accessible to the public on the Environmental Protection Agency web site. Any State or electric utility may contest the listing of any source or site by submitting a petition to the Administrator.

''(2) The Administrator shall register and include on the Registry all sites meeting the criteria of subsection (b). The Administrator shall calculate the total amounts of potentially recoverable waste energy from sources at such

sites, nationally and by State, and shall make such totals public, together with information on the air pollutant and greenhouse gas emissions savings that might be achieved with recovery of the waste energy from all sources and sites listed in the Registry.

''(3) The Administrator shall notify owners or operators of Recoverable Waste-Energy Sources and sites listed in the Registry prior to publishing the listing. The owner or operator of sources at such sites may elect to have detailed quantitative information concerning that site not made public by notifying the Administrator of that election. Information concerning that site shall be included in State totals unless there are fewer than 3 sites in the State.

''(4) As waste energy projects achieve successful recovery of waste energy, the Administrator shall remove the related sites or sources from the Registry, and shall designate the removed projects as eligible for the incentive provisions provided under this Part and the regulatory treatment required by this Part. No project shall be removed from the Registry without the consent of the owner or operator of the project if the owner or operator has submitted a petition under section 375 and such petition has not been acted upon or denied.

''(5) The Administrator shall not list any source constructed after the date of the enactment of this Part on the Registry if the Administrator determines that such source—

''(A) was developed for the primary purpose of making sales of excess electric power under the regulatory treatment provided under this Part; or

''(B) does not capture at least 60 percent of the total energy value of the fuels used (on a lower-heating-value basis) in the form of useful thermal energy, electricity, mechanical energy, chemical output, or some combination of them.

''(e) SELF-CERTIFICATION.—Owners, operators, or third-party developers of industrial waste-energy projects that qualify under standards established by the Administrator may self-certify their sites or sources to the Administrator for inclusion in the Registry, subject to procedures adopted by the Administrator. To prevent a fraudulent listing, the sources shall be included on the Registry only if the Administrator confirms the submitted data, at the Administrator's discretion.

''(f) NEW FACILITIES.—As a new energy-consuming industrial facility is developed after the enactment of this Part, to the extent it may constitute a site with recoverable waste energy that may qualify for the Registry, the

Administrator may elect to include it in the Registry at the request of its owner or operator or developer on a conditional basis, removing the site if its development ceases or it if fails to qualify for listing under this Part.

''(g) OPTIMUM MEANS OF RECOVERY.—For each site listed in the Registry, at the request of the owner or operator of the site, the Administrator shall offer, in cooperation with Clean Energy Application Centers operated by the Secretary of Energy, suggestions of optimum means of recovery of value from waste energy stream in the form of electricity, useful thermal energy, or other energy-related products.

''(h) REVISION.—Each annual State report under section 548(a) of the National Energy Conservation Policy Act shall include the results of the survey for that State under this section.

''(i) AUTHORIZATION.—There are authorized to be appropriated to the Administrator for the purposes of creating and maintaining the Registry and services authorized by this section not more than $1,000,000 for each of fiscal years 2008, 2009, 2010, 2010, and 2012 and not more than $5,000,000 to the States to provide funding for State energy office functions under this section .

"SEC. 374. WASTE ENERGY RECOVERY INCENTIVE GRANT PROGRAM.

"(a) ESTABLISHMENT OF PROGRAM.—There is established in the Environmental Protection Agency a Waste Energy Recovery Incentive Grant Program to provide incentive grants to owners and operators of projects that successfully produce electricity or incremental useful thermal energy from waste energy recovery (and to utilities purchasing or distributing such electricity) and to reward States that have achieved 80 percent or more of identified waste-heat recovery opportunities.

"(b) GRANTS TO PROJECTS AND UTILITIES.—

"(1) IN GENERAL.—The Administrator shall make grants to the owners or operators of waste energy recovery projects, and, in the case of excess power purchased or transmitted by a electric utility, to such utility. Grants may only be made upon receipt of proof of waste energy recovery or excess electricity generation, or both, from the project in a form prescribed by the Administrator, by rule.

"(2) EXCESS ELECTRIC ENERGY.—In the case of waste energy recovery, the grants under this section shall be made at the rate of $10 per megawatt hour of documented electricity produced from recovered waste energy (or by prevention of waste energy in the case of a new facility) by the project during

the first 3 calendar years of such production, beginning on or after the date of enactment of this Part. If the project produces net excess power and an electric utility purchases or transmits the excess power, 50 percent of so much of such grant as is attributable to the net excess power shall be paid to the electric utility purchasing or transporting the net excess power.

''(3) USEFUL THERMAL ENERGY.—In the case of waste energy recovery that produces useful thermal energy that is used for a purpose different from that for which the project is principally designed, the grants under this section shall be made to the owner or operator of the waste energy recovery project at the rate of $10 for each 3,412,000 Btus of such excess thermal energy used for such different purpose.

''(c) GRANTS TO STATES.—In the case of States that have achieved 80 percent or more of waste-heat recovery opportunities identified by the Administrator under this Part, the Administrator shall make grants to the States of up to $1,000 per Megawatt of waste-heat capacity recovered (or its thermal equivalent) to support State-level programs to identify and achieve additional energy efficiency.

''(d) ELIGIBILITY.—The Administrator shall establish rules and guidelines to establish eligibility for grants, shall make the grant program known to those listed in the Registry, and shall offer such grants on the basis of the merits of each project in recovering or preventing waste energy throughout the United States on an impartial, objective, and not unduly discriminatory basis.

''(e) AUTHORIZATION.—(1) There is authorized to be appropriated to the Administrator $100,000,000 for fiscal year 2008, and $200,000,000 for each of fiscal years 2009, 2010, 2011, and 2012 for grants under subsection (b) of this section, and such additional amounts during those years and thereafter as may be necessary for administration of the Waste Energy Recovery Incentive Grant Program.

''(2) There is authorized to be appropriated to the Administrator not more than $10,000,000 for each of the first five fiscal years after the enactment of this Part, to be available until expended for purposes of grants to States under subsection (c).

''SEC. 375. ADDITIONAL INCENTIVES FOR RECOVERY, UTILIZATION AND PREVENTION OF INDUSTRIAL WASTE ENERGY.

''(a) CONSIDERATION OF STANDARD.—Not later than 180 days after the receipt by a State regulatory au-

thority (with respect to each electric utility for which it has ratemaking authority), or nonregulated electric utility, of a request from a project sponsor or owner or operator, the State regulatory authority or nonregulated electric utility shall provide public notice and conduct a hearing respecting the standard established by subsection (c) and, on the basis of such hearing, shall consider and make a determination whether or not it is appropriate to implement such standard to carry out the purposes of this Part. For purposes of any such determination and any review of such determination in any court the purposes of this section supplement otherwise applicable State law. Nothing in this section prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any such standard, pursuant to its authority under otherwise applicable State law.

''(b) STANDARD FOR SALES OF EXCESS POWER.—For purposes of this section, the standard referred to in subsection (a) shall provide that an owner or operator of a waste energy recovery project identified on the Registry who generates net excess power shall be eligible to benefit from at least one of the options described in subsection (c) for disposal of the net excess power in accordance with

the rate conditions and limitations described in subsection (d).

''(c) OPTIONS.—The options referred to in subsection (b) are as follows:

''(1) SALE OF NET EXCESS POWER TO UTILITY.—The electric utility shall purchase the net excess power from the owner or operator of the eligible waste-energy recovery project during the operation of the project under a contract entered into for that purpose.

''(2) TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTY.—The electric utility shall transmit the net excess power on behalf of the project owner or operator to up to three separate locations on that utility's system for direct sale by that owner or operator to third parties at such locations.

''(3) TRANSPORT OVER PRIVATE TRANSMISSION LINES.—The State and the electric utility shall permit, and shall waive or modify such laws as would otherwise prohibit, the construction and operation of private electric wires constructed, owned and operated by the project owner or operator, to transport such power to up to 3 purchasers within a 3-mile radius of the project, allowing such wires to utilize or cross public rights-of-way, without subjecting the

project to regulation as a public utility, and according such wires the same treatment for safety, zoning, land-use and other legal privileges as apply or would apply to the utility's own wires, except that —

''(A) there shall be no grant of any power of eminent domain to take or cross private property for such wires, and

''(B) such wires shall be physically segregated and not interconnected with any portion of the utility's system, except on the customer's side of the utility's revenue meter and in a manner that precludes any possible export of such electricity onto the utility system, or disruption of such system.

''(4) AGREED UPON ALTERNATIVES.—The utility and the owner or operator of the project may reach agreement on any alternate arrangement and its associated payments or rates that is mutually satisfactory and in accord with State law.

''(d) RATE CONDITIONS AND CRITERIA.—

''(1) IN GENERAL.—The options described in paragraphs (1) and (2) in subsection (c) shall be offered under purchase and transport rate conditions reflecting the rate components defined under paragraph (2) of this subsection as applicable under the

circumstances described in paragraph (3) of this subsection.

''(2) RATE COMPONENTS.—For purposes of this section:

''(A) PER UNIT DISTRIBUTION COSTS.—The term 'per unit distribution costs' means the utility's depreciated book-value distribution system costs divided by the previous year's volume of utility electricity sales or transmission at the distribution level in kilowatt hours.

''(B) PER UNIT DISTRIBUTION MARGIN.—The term 'per unit distribution margin' means:

''(i) In the case of a State regulated electric utility, a per-unit gross pretax profit determined by multiplying the utility's State-approved percentage rate of return for distribution system assets by the per unit distribution costs.

''(ii) In the case of an nonregulated utility, a per unit contribution to net revenues determined by dividing the amount of any net revenue payment or contribution to the nonregulated utility's owners or subscribers in the prior year by the utility's gross revenues for the prior year to obtain

a percentage (but not less than 10 percent) and multiplying that percentage by the per unit distribution costs.

''(C) PER UNIT TRANSMISSION COSTS.—The term 'per unit transmission costs' means the total cost of those transmission services purchased or provided by a utility on a per-kilowatt-hour basis as included in that utility's retail rate.

''(3) APPLICABLE RATES.—

''(A) RATES APPLICABLE TO SALE OF NET EXCESS POWER.—Sales made by a project owner or operator under the option described in subsection (c) (1) shall be paid for on a per kilowatt hour basis that shall equal the full undiscounted retail rate paid to the utility for power purchased by such a facility *minus* per unit distribution costs, as applicable to the type of utility purchasing the power. If the net excess power is made available for purchase at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be available for resale by the utility, then the purchase price shall further be reduced by per unit transmission costs.

''(B) RATES APPLICABLE TO TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTIES.—Transportation by utilities of power on behalf of the owner or operator of a project under the option described in subsection (c)(2) shall incur a transportation rate equal to the per unit distribution costs and per unit distribution margin, as applicable to the type of utility transporting the power. If the net excess power is made available for transportation at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be transported to the designated third-party purchasers, then the transport rate shall further be increased by per unit transmission costs. In States with competitive retail markets for electricity, the applicable transportation rate for similar transportation shall be applied in lieu of any rate calculated under this paragraph.

''(4) LIMITATIONS.—(A) Any rate established for sale or transportation under this section shall be modified over time with changes in the electric utility's underlying costs or rates, and shall reflect the same time-sensitivity and billing periods as are es-

tablished in the retail sales or transportation rates offered by the utility.

''(B) No utility shall be required to purchase or transport an amount of net excess power under this section that exceeds the capacity of the wires, meter, or other equipment of the electric utility serving the site unless the owner or operator of the project agrees to pay necessary and reasonable upgrade costs.

''(e) PROCEDURAL REQUIREMENTS FOR CONSIDERATION AND DETERMINATION.—(1) The consideration referred to in subsection (b) shall be made after public notice and hearing. The determination referred to in subsection (b) shall be—

''(A) in writing,

''(B) based upon findings included in such determination and upon the evidence presented at the hearing, and

''(C) available to the public.

''(2) The Administrator may intervene as a matter of right in a proceeding conducted under this section and may calculate the energy and emissions likely to be saved by electing to adopt one or more of the options, as well as the costs and benefits to ratepayers and the utility and to advocate for the waste-energy recovery opportunity.

''(3) Except as otherwise provided in paragraph (1), and paragraph (2), the procedures for the consideration and determination referred to in subsection (a) shall be those established by the State regulatory authority or the nonregulated electric utility. In the instance that there is more than one project seeking such consideration simultaneously in connection with the same utility, such proceeding may encompass all such projects, provided that full attention is paid to their individual circumstances and merits, and an individual judgment is reached with respect to each project.

''(f) IMPLEMENTATION.—(1) The State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility may, to the extent consistent with otherwise applicable State law—

''(A) implement the standard determined under this section, or

''(B) decline to implement any such standard.

''(2) If a State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility declines to implement any standard established by this section, such authority or nonregulated electric utility shall state in writing the reasons therefor. Such statement of reasons shall be available

to the public, and the Administrator shall include the project in an annual report to Congress concerning lost opportunities for waste-heat recovery, specifically identifying the utility and stating the amount of lost energy and emissions savings calculated. If a State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility declines to implement the standard established by this section, the project sponsor may submit a new petition under this section with respect to such project at any time after 24 months after the date on which the State regulatory authority or nonregulated utility has declined to implement such standard.

"SEC. 376. CLEAN ENERGY APPLICATION CENTERS.

''(a) PURPOSE.—The purpose of this section is to rename and provide for the continued operation of the United States Department of Energy's Regional Combined Heat and Power (CHP) Application Centers.

''(b) FINDINGS.—The Congress finds the Department of Energy's Regional Combined Heat and Power (CHP) Application Centers program has produced significant energy savings and climate change benefits and will continue to do so through the deployment of clean energy technologies such as Combined Heat and Power (CHP),

recycled waste energy and biomass energy systems, in the industrial and commercial energy markets.

''(c) RENAMING.—The Combined Heat and Power Application Centers at the Department of Energy are hereby be redesignated as Clean Energy Application Centers. Any reference in any law, rule or regulation or publication to the Combined Heat and Power Application Centers shall be treated as a reference to the Clean Energy Application Centers.

''(d) RELOCATION.—In order to better coordinate efforts with the separate Industrial Assessment Centers and to assure that the energy efficiency and, when applicable, the renewable nature of deploying mature clean energy technology is fully accounted for, the Secretary of Energy shall relocate the administration of the Clean Energy Application Centers to the Office of Energy Efficiency and Renewable Energy within the Department of Energy. The Office of Electricity Delivery and Energy Reliability shall continue to perform work on the role of such technology in support of the grid and its reliability and security, and shall assist the Clean Energy Application Centers in their work with regard to the grid and with electric utilities.

''(e) GRANTS.—

''(1) IN GENERAL.—The Secretary of Energy shall make grants to universities, research centers,

and other appropriate institutions to assure the continued operations and effectiveness of 8 Regional Clean Energy Application Centers in each of the following regions (as designated for such purposes as of the date of the enactment of this section):

''(A) Gulf Coast.

''(B) Intermountain.

''(C) Mid-Atlantic.

''(D) Midwest.

''(E) Northeast.

''(F) Northwest.

''(G) Pacific.

''(H) Southeast.

''(2) ESTABLISHMENT OF GOALS AND COMPLIANCE.—In making grants under this section, the Secretary shall ensure that sufficient goals are established and met by each Center throughout the program duration concerning outreach and technology deployment.

''(f) ACTIVITIES.—Each Clean Energy Application Center shall operate a program to encourage deployment of clean energy technologies through education and outreach to building and industrial professionals, and to other individuals and organizations with an interest in efficient energy use. In addition, the Centers shall provide project

specific support to building and industrial professionals through assessments and advisory activities. Funds made available under this section may be used for the following activities:

''(1) Developing and distributing informational materials on clean energy technologies, including continuation of the eight existing Web sites.

''(2) Developing and conducting target market workshops, seminars, internet programs and other activities to educate end users, regulators, and stakeholders in a manner that leads to the deployment of clean energy technologies.

''(3) Providing or coordinating onsite assessments for sites and enterprises that may consider deployment of clean energy technology.

''(4) Performing market research to identify high profile candidates for clean energy deployment.

''(5) Providing consulting support to sites considering deployment of clean energy technologies.

''(6) Assisting organizations developing clean energy technologies to overcome barriers to deployment.

''(g) DURATION.—A grant awarded under this section shall be for a period of 5 years. each grant shall be

evaluated annually for its continuation based on its activities and results.

''(h) AUTHORIZATION.—There is authorized to be appropriated for purposes of this section the sum of $10,000,000 for each of fiscal years 2008, 2009, 2010, 2011, and 2012.''.

(b) TABLE OF CONTENTS.—The table of contents for such Act is amended by inserting the following after the items relating to part D of title III:

Subtitle F—Energy Efficiency of Public Institutions

SEC. 171. SHORT TITLE.

This subtitle may be cited as the ''Sustainable Energy Institutional Infrastructure Act of 2007''.

SEC. 172. FINDINGS.

The Congress finds the following:

(1) Many institutional entities own and operate, or are served by, district energy systems.

(2) A variety of renewable energy resources could be tapped by governmental and institutional energy systems to meet energy requirements.

(3) Use of these renewable energy resources to meet energy requirements will reduce reliance on fossil fuels and the associated emissions of air pollution and carbon dioxide.

(4) CHP is a highly efficient and environmentally beneficial means to generate electric energy and heat, and offers total efficiency much greater than conventional separate systems, where electric energy is generated at and transmitted long distances from a centrally located generation facility, and onsite heating and cooling equipment is used to meet nonelectric energy requirements.

(5) Heat recovered in a CHP generation system can be used for space heating, domestic hot water, or process steam requirements, or can be converted to cooling energy to meet air conditioning requirements.

(6) The increased efficiency of CHP results in reduction in emissions of air pollution and carbon dioxide.

(7) District energy systems represent a key opportunity for expanding implementation of CHP because district energy systems provide a means of delivering thermal energy from CHP to a substantial base of end users.

(8) District energy systems help cut peak power demand and reduce power transmission and distribution system constraints by meeting air conditioning demand through delivery of chilled water produced with CHP-generated heat or other energy sources, shifting power demand through thermal storage, and, with CHP, generating power near load centers.

(9) Evaluation and implementation of sustainable energy infrastructure is a complex undertaking involving a variety of technical, economic, legal, and institutional issues and barriers, and technical assistance is often required to successfully navigate these barriers.

(10) The major constraint to significant expansion of sustainable energy infrastructure by institutional entities is a lack of capital funding for implementation.

SEC. 173. DEFINITIONS.

For purposes of this subtitle—

(1) the term ''CHP'' means combined heat and power, or the generation of electric energy and heat in a single, integrated system;

(2) the term ''district energy systems'' means systems providing thermal energy to buildings and other energy consumers from one or more plants to

individual buildings to provide space heating, air conditioning, domestic hot water, industrial process energy, and other end uses;

(3) the term ''institutional entities'' means local governments, public school districts, municipal utilities, State governments, Federal agencies, and other entities established by local, State, or Federal agencies to meet public purposes, and public or private colleges, universities, airports, and hospitals;

(4) the term ''renewable thermal energy sources'' means non-fossil-fuel energy sources, including biomass, geothermal, solar, natural sources of cooling such as cold lake or ocean water, and other sources that can provide heating or cooling energy;

(5) the term ''sustainable energy infrastructure'' means facilities for production of energy from CHP or renewable thermal energy sources and distribution of thermal energy to users; and

(6) the term ''thermal energy'' means heating or cooling energy in the form of hot water or steam (heating energy) or chilled water (cooling energy).

SEC. 174. TECHNICAL ASSISTANCE PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy shall, with funds appropriated for this purpose, implement

a program of information dissemination and technical assistance to institutional entities to assist them in identifying, evaluating, designing, and implementing sustainable energy infrastructure.

(b) INFORMATION DISSEMINATION.—The Secretary shall develop and disseminate information and assessment tools addressing—

(1) identification of opportunities for sustainable energy infrastructure;

(2) technical and economic characteristics of sustainable energy infrastructure;

(3) utility interconnection, and negotiation of power and fuel contracts;

(4) financing alternatives;

(5) permitting and siting issues;

(6) case studies of successful sustainable energy infrastructure systems; and

(7) computer software for assessment, design, and operation and maintenance of sustainable energy infrastructure systems.

(c) ELIGIBLE COSTS.—Upon application by an institutional entity, the Secretary may make grants to such applicant to fund—

(1) 75 percent of the cost of feasibility studies to assess the potential for implementation or improvement of sustainable energy infrastructure;

(2) 60 percent of the cost of guidance on overcoming barriers to project implementation, including financial, contracting, siting, and permitting barriers; and

(3) 45 percent of the cost of detailed engineering and design of sustainable energy infrastructure.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $15,000,000 for fiscal year 2008, $15,000,000 for fiscal year 2009, and $15,000,000 for fiscal year 2010.

SEC. 175. REVOLVING FUND.

(a) ESTABLISHMENT.—The Secretary of Energy shall, with funds appropriated for this purpose, create a Sustainable Institutions Revolving Fund for the purpose of establishing and operating a Sustainable Institutions Revolving Fund (in this section referred to as the ''SIRF'') for the purpose of providing loans for the construction or improvement of sustainable energy infrastructure to serve institutional entities.

(b) ELIGIBLE COSTS.—A loan provided from the SIRF shall be for no more than 70 percent of the total capital costs of a project, and shall not exceed

$15,000,000. Such loans shall be for constructing sustainable energy infrastructure, including—

(1) plant facilities used for producing thermal energy, electricity, or both;

(2) facilities for storing thermal energy;

(3) facilities for distribution of thermal energy; and

(4) costs for converting buildings to use thermal energy from sustainable energy sources.

(c) QUALIFICATIONS.—Loans from the SIRF may be made to institutional entities for projects meeting the qualifications and conditions established by the Secretary, including the following minimum qualifications:

(1) The project shall be technically and economically feasible as determined by a detailed feasibility analysis performed or corroborated by an independent consultant.

(2) The borrower shall demonstrate that adequate and comparable financing was not found to be reasonably available from other sources, and that the project is economically more feasible with the availability of the SIRF loan.

(3) The borrower shall obtain commitments for the remaining capital required to implement the project, contingent on approval of the SIRF loan.

(4) The borrower shall provide to the Secretary reasonable assurance that all laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed in whole or in part with a loan provided under this section will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly referred to as the Davis-Bacon Act).

(d) FINANCING TERMS.—(1) Interest on a loan under this section may be a fixed rate or floating rate, and shall be equal to the Federal cost of funds consistent with the loan type and term, minus 1.5 percent.

(2) Interest shall accrue from the date of the loan, but the first payment of interest shall be deferred, if desired by the borrower, for a period ending not later than 3 years after the initial date of operation of the system.

(3) Interest attributable to the period of deferred payment shall be amortized over the remainder of the loan term.

(4) Principal shall be repaid on a schedule established at the time the loan is made. Such payments shall begin

not later than 3 years after the initial date of operation of the system.

(5) Loans made from the SIRF shall be repayable over a period ending not more than 20 years after the date the loan is made.

(6) Loans shall be prepayable at any time without penalty.

(7) SIRF loans shall be subordinate to other loans for the project.

(e) FUNDING CYCLES.—Applications for loans from the SIRF shall be received on a periodic basis at least semiannually.

(f) APPLICATION OF REPAYMENTS FOR DEFICIT REDUCTION.—Loans from the SIRF shall be made, with funds available for this purpose, during the 10 years starting from the date that the first loan from the fund is made. Until this 10-year period ends, funds repaid by borrowers shall be deposited in the SIRF to be made available for additional loans. Once loans from the SIRF are no longer being made, repayments shall go directly into the United States Treasury.

(g) PRIORITIES.—In evaluating projects for funding, priority shall be given to projects which—

(1) maximize energy efficiency;

(2) minimize environmental impacts, including from regulated air pollutants, greenhouse gas emissions, and the use of refrigerants known to cause ozone depletion;

(3) use renewable energy resources;

(4) maximize oil displacement; and

(5) benefit economically-depressed areas.

(h) REGULATIONS.—Not later than one year after the date of enactment of this Act, the Secretary of Energy shall develop a plan and adopt rules and procedures for establishing and operating the SIRF.

(i) PROGRAM REVIEW.—Every two years the Secretary shall report to the Congress on the status and progress of the SIRF.

(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $250,000,000 for fiscal year 2008 and $500,000,000 for each of the fiscal years 2009 through 2012.

SEC. 176. REAUTHORIZATION OF STATE ENERGY PROGRAMS.

Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking ''$100,000,000 for each of the fiscal years 2006 and 2007 and $125,000,000 for fiscal year 2008'' and inserting

''$125,000,000 for each of the fiscal years 2007, 2008, 2009, 2010, 2011, and 2012''.

Subtitle G—Energy Savings Performance Contracting

SEC. 181. DEFINITION OF ENERGY SAVINGS.

Section 804(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(2)) is amended—

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

(2) by striking ''means a reduction'' and inserting ''means—

''(A) a reduction'';

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

(4) by adding at the end the following:

''(B) the increased efficient use of an existing energy source by cogeneration or heat recovery, and installation of renewable energy systems;

''(C) if otherwise authorized by Federal or State law (including regulations), the sale or transfer of electrical or thermal energy generated onsite but in excess of Federal needs, to utilities or non-Federal energy users; and

''(D) the increased efficient use of existing water sources in interior or exterior applications.''.

SEC. 182. FINANCING FLEXIBILITY.

Section 801(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)) is amended by adding at the end the following:

''(E) SEPARATE CONTRACTS.—In carrying out a contract under this title, a Federal agency may—

''(i) enter into a separate contract for energy services and conservation measures under the contract; and

''(ii) provide all or part of the financing necessary to carry out the contract.''.

SEC. 183. AUTHORITY TO ENTER INTO CONTRACTS; REPORTS.

(a) AUTHORITY TO ENTER INTO CONTRACTS.—Section 801(a)(2)(D) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)(D)) is amended—

(1) in clause (ii), by inserting ''and'' after the semicolon at the end;

(2) by striking clause (iii); and

(3) by redesignating clause (iv) as clause (iii).

(b) REPORTS.—Section 548(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)(2)))

is amended by inserting ''and any termination penalty exposure'' after ''the energy and cost savings that have resulted from such contracts''.

(c) CONFORMING AMENDMENT.—Section 2913 of title 10, United States Code is amended by striking subsection (e).

SEC. 184. PERMANENT REAUTHORIZATION.

Section 801 of the National Energy Conservation Policy Act (42 U.S.C. 8287) is amended by striking subsection (c).

SEC. 185. TRAINING FEDERAL CONTRACTING OFFICERS TO NEGOTIATE ENERGY EFFICIENCY CONTRACTS.

(a) PROGRAM.—The Secretary of Energy shall create and administer in the Federal Energy Management Program a training program to educate Federal contract negotiation and contract management personnel so that such contract officers are prepared to—

(1) negotiate energy savings performance contracts;

(2) conclude effective and timely contracts for energy efficiency services with all companies offering energy efficiency services; and

(3) review Federal contracts for all products and services for their potential energy efficiency opportunities and implications.

(b) SCHEDULE.—The Federal Energy Management Program shall plan, staff, announce, and begin such training not later than one year after the date of enactment of this Act.

(c) PERSONNEL TO BE TRAINED.—Personnel appropriate to receive such training shall be selected by and sent for such training from—

(1) the Department of Defense;

(2) the Department of Veterans Affairs;

(3) the Department of Energy;

(4) the General Services Administration;

(5) the United States Postal Service; and

(6) all other Federal agencies and departments that enter contracts for buildings, building services, electricity and electricity services, natural gas and natural gas services, heating and air conditioning services, building fuel purchases, and other types of procurement or service contracts determined by Federal Energy Management Program to offer the potential for energy savings and greenhouse gas emission reductions if negotiated with such goals in mind.

(d) TRAINERS.—Such training may be conducted by attorneys or contract officers with experience in negotiating and managing such contracts from any agency, and the Department of Energy shall reimburse their related salaries and expenses from amounts appropriated for carrying out this section to the extent they are not already employees of the Department of Energy. Such training may also be provided by private experts hired by the Department of Energy for the purposes of this section, except that the Department may not hire experts who are simultaneously employed by any company under contract to provide such energy efficiency services to the Federal Government.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy for carrying out this section $750,000 for each of fiscal years 2008 through 2012.

SEC. 186. PROMOTING LONG-TERM ENERGY SAVINGS PERFORMANCE CONTRACTS AND VERIFYING SAVINGS.

Section 801(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)) is amended—

(1) in subparagraph (D), by inserting ''beginning on the date of the delivery order'' after ''25 years''; and

(2) by adding at the end the following:

''(F) PROMOTION OF CONTRACTS.—In carrying out this section, a Federal agency shall not—

''(i) establish a Federal agency policy that limits the maximum contract term under subparagraph (D) to a period shorter than 25 years; or

''(ii) limit the total amount of obligations under energy savings performance contracts or other private financing of energy savings measures.

''(G) MEASUREMENT AND VERIFICATION REQUIREMENTS FOR PRIVATE FINANCING.—

''(i) IN GENERAL.—The evaluations and savings measurement and verification required under paragraphs (1) and (3) of section 543(f) shall be used by a Federal agency to meet the requirements for—

''(I) in the case of energy savings performance contracts, the need for energy audits, calculation of energy savings, and any other evaluation of costs and savings needed to imple-

ment the guarantee of savings under this section; and

''(II) in the case of utility energy service contracts, needs that are similar to the purposes described in subclause (I).

''(ii) MODIFICATION OF EXISTING CONTRACTS.—Not later than 180 days after the date of enactment of this subparagraph, each Federal agency shall, to the maximum extent practicable, modify any indefinite delivery and indefinite quantity energy savings performance contracts, and other indefinite delivery and indefinite quantity contracts using private financing, to conform to the amendments made by subtitle G of title I of the [short title].''.

Subtitle H—Advisory Committee on Energy Efficiency Financing

SEC. 191. ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—The Assistant Secretary of Energy for Energy Efficiency and Renewable Energy shall establish an advisory committee to provide advice and recommendations to the Department of Energy on energy efficiency finance and investment issues, options, ideas, and

trends, and to assist the energy community in identifying practical ways of lowering costs and increasing investments in energy efficiency technologies.

(b) MEMBERSHIP.—The advisory committee established under this section shall have a balanced membership that shall include members representing the following communities:

(1) Providers of seed capital.

(2) Venture capitalists.

(3) Private equity sources.

(4) Investment banking corporate finance.

(5) Investment banking mergers and acquisitions.

(6) Equity capital markets.

(7) Debt capital markets.

(8) Research analysts.

(9) Sales and trading.

(10) Commercial lenders.

(11) Residential lenders.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to the Secretary of Energy for carrying out this section.